5

Primary

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in

Maths

Multiplication Tables and Charts

1	2	3	4	5	6
1 x 1 = 1	2 x 1 = 2	3 x 1 = 3	4 x 1 = 4	5 x 1 = 5	6 x 1 = 6
1 x 2 = 2	2 x 2 = 4	3 x 2 = 6	4 x 2 = 8	5 x 2 = 10	6 x 2 = 12
1 x 3 = 3	2 x 3 = 6	3 x 3 = 9	4 x 3 = 12	5 x 3 = 15	6 x 3 = 18
1 x 4 = 4	2 x 4 = 8	3 x 4 = 12	4 x 4 = 16	5 x 4 = 20	6 x 4 = 24
1 x 5 = 5	2 x 5 = 10	3 x 5 = 15	4 x 5 = 20	5 x 5 = 25	6 x 5 = 30
1 x 6 = 6	2 x 6 = 12	3 x 6 = 18	4 x 6 = 24	5 x 6 = 30	6 x 6 = 36
1 x 7 = 7	2 x 7 = 14	3 x 7 = 21	4 x 7 = 28	5 x 7 = 35	6 x 7 = 42
1 x 8 = 8	2 x 8 = 16	3 x 8 = 24	4 x 8 = 32	5 x 8 = 40	6 x 8 = 48
1 x 9 = 9	2 x 9 = 18	3 x 9 = 27	4 x 9 = 36	5 x 9 = 45	6 x 9 = 54
1 x 10 = 10	2 x 10 = 20	3 x 10 = 30	4 x 10 = 40	5 x 10 = 50	6 x 10 = 60
1 x 11 = 11	2 x 11 = 22	3 x 11 = 33	4 x 11 = 44	5 x 11 = 55	6 x 11 = 66
1 x 12 = 12	2 x 12 = 24	3 x 12 = 36	4 x 12 = 48	5 x 12 = 60	6 x 12 = 72

7	8	9	10	11	12
7 x 1 = 7	8 x 1 = 8	9 x 1 = 9	10 x 1 = 10	11 x 1 = 11	12 x 1 = 12
7 x 2 = 14	8 x 2 = 16	9 x 2 = 18	10 x 2 = 20	11 x 2 = 22	12 x 2 = 24
7 x 3 = 21	8 x 3 = 24	9 x 3 = 27	10 x 3 = 30	11 x 3 = 33	12 x 3 = 36
7 x 4 = 28	8 x 4 = 32	9 x 4 = 36	10 x 4 = 40	11 x 4 = 44	12 x 4 = 48
7 x 5 = 35	8 x 5 = 40	9 x 5 = 45	10 x 5 = 50	11 x 5 = 55	12 x 5 = 60
7 x 6 = 42	8 x 6 = 48	9 x 6 = 54	10 x 6 = 60	11 x 6 = 66	12 x 6 = 72
7 x 7 = 49	8 x 7 = 56	9 x 7 = 63	10 x 7 = 70	11 x 7 = 77	12 x 7 = 84
7 x 8 = 56	8 x 8 = 64	9 x 8 = 72	10 x 8 = 80	11 x 8 = 88	12 x 8 = 96
7 x 9 = 63	8 x 9 = 72	9 x 9 = 81	10 x 9 = 90	11 x 9 = 99	12 x 9 = 108
7 x 10 = 70	8 x 10 = 80	9 x 10 = 90	10 x 10 = 100	11 x 10 = 110	12 x 10 = 120
7 x 11 = 77	8 x 11 = 88	9 x 11 = 99	10 x 11 = 110	11 x 11 = 121	12 x 11 = 132
7 x 12 = 84	8 x 12 = 96	9 x 12 = 108	10 x 12 = 120	11 x 12 = 132	12 x 12 = 144

Revision

fractions

Proper fraction

is fraction less than 1 (<1)

Ex : $\frac{3}{5}$, $\frac{5}{7}$, $\frac{7}{12}$, $\frac{9}{15}$

the numerator is **less than** the denominator

Improper fraction

is fraction more than 1 (>1)

Ex : $\frac{13}{5}$, $\frac{9}{7}$, $\frac{17}{12}$, $\frac{9}{5}$

the numerator is **more than** the denominator

Mixed number

is consist of whole number and proper fraction

Ex : $2\frac{3}{5}$, $4\frac{5}{7}$, $5\frac{4}{6}$

Unite fraction

a fraction its numerator = 1

$\frac{1}{3}$, $\frac{1}{5}$, $\frac{1}{7}$, $\frac{1}{10}$

Equivalent fraction

$\frac{3}{10} = \frac{30}{100} = \frac{300}{1000} = \ldots\ldots$

0.5 = 0.50 = 0.500 = ...

⊙**Prime number :**

it has only two factor 1 and itself

2 , 3 , 5 , 7, 11 , 13 , 17 , 19,...............

⊙**factors** of 15 is 1 , 3 ,5 and 15

prime factors of 15 is 3 and 5

1 is **common factor** of all number

0 is **common multiple** of all number

⊙ **area of rectangle**

= length × width or (L × W)

⊙ **perimeter of rectangle**

= (length + width) × 2 or (L+W)X2

⊙ **area of square**

= side length × itself or (S X S)

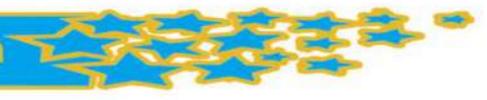
⊙ **perimeter of square**

= side length × 4 or (4 X S)

Example① Convert in to mixed number :-

① $\frac{32}{6} =$ ....   ② $\frac{24}{5} =$ ....   ③ $\frac{17}{4} =$ ....

Exercise① Convert in to mixed number :-

① $\frac{15}{7} =$ ....   ② $\frac{23}{5} =$ ....   ③ $\frac{19}{6} =$ ....

Example② convert in to improper fraction :

① $2\frac{3}{4}$ = …………… ② $3\frac{2}{5}$ = …………… ③ $4\frac{1}{6}$ = ………..

Exercise② convert in to improper fraction :

① $5\frac{1}{4}$ = …………… ② $2\frac{2}{3}$ = …………… ③ $7\frac{2}{5}$ = ………..

Example③ write in expanded form :

① 34,562 = …………………………………………………………………………

② 405,609 = …………………………………………………………………………

Exercise③ write in expanded form :

① 14,803 = …………………………………………………………………………

② 413,085 = …………………………………………………………………………

Example④ write in standard form :

① $60{,}000 + 2{,}000 + 600 + 30 + 7 =$ ………………..

② $400{,}000 + 20{,}000 + 800 + 6 =$ …………………… ③ $30{,}000 + 8 =$ ……………

Exercise④ write in standard form :

① $20{,}000 + 5{,}000 + 100 + 30 =$ ………………..

② $900{,}000 + 6{,}000 + 800 + 7 =$ …………………… ③ $80{,}000 + 500 =$ ……………

Example⑤ find the value of X

① $X - 324 = 426$, then X = ……… ② $564 + X = 827$, then X = ………

Exercise⑤ find the value of X

① $X - 54 = 46$, then X = ……… ② $231 + X = 400$, then X = ………

Example⑥ put the sign (> , = , <)

① 60×40 ☐ 700×3 ② 0.45 ☐ 0.5

Exercise⑥ put the sign (> , = , <)

① 500×7 ☐ 700×5 ② 3.15 ☐ 2.5

Unit 1

Lesson 1

Decimals to thousandths

Learn

- A decimal is a number that uses a decimal point as 563.174
- A decimal has one or more digits to the right of decimal point

The place Value and the value Chart

	5	6	3	.	1	7	4
Place Value	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths
The Value	500	60	3		0.1	0.07	0.004

Standard form : 563.174

We write the word and after the whole part

Word form : Five hundred sixty-three and one hundred seventy four thousandths

Unit form : 5 hundreds , 6 tens , 3 ones , 1 tenths , 7 hundredths , 4 thousandths

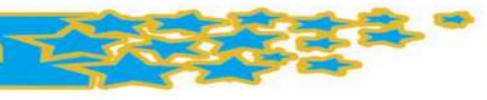
Example ① Write in decimals :

① $\frac{3}{10}$ = ……. ② $\frac{23}{100}$ = ……. ③ $\frac{342}{1000}$ = ……. ④ $3\frac{7}{10}$ = ………..

⑤ $\frac{24}{10}$ = ……. ⑥ $\frac{67}{1000}$ = ……. ⑦ $23\frac{5}{100}$ = ……… ⑧ $\frac{319}{100}$ = ……………

Exercise ① Write in decimals :

① $\frac{9}{10}$ = ……. ② $\frac{2}{100}$ = ……. ③ $\frac{7}{1000}$ = ……. ④ $4\frac{4}{10}$ = ………..

⑤ $\frac{15}{100}$ = ……. ⑥ $\frac{452}{1000}$ = ……. ⑦ $6\frac{3}{100}$ = ……… ⑧ $\frac{15}{1000}$ = ……………

Example ② Write in improper fraction :

① 3.6 = ………… ② 4.07 = ………… ③ 25.9 = ………… ④ 6.231 = …………………

● Write the place value of the digit 5 in the following numbers :

4.56 …………………… 2.345 …………………… 0.754 ……………………

5.32 …………………… 54.8 …………………… 520.64 ……………………

● Write the value of the digit 3 in the following numbers :

23.4 …………… 2.345 …………… 0.437 …………… 1.253 ……………

● Complete

① 9 hundredths = ………… ② 5 tenths = …………… ③ 3 thousandths = ……………

① 15 hundredths = ………… ② 127 tenths = ………… ③ 86 thousandths = …………

Exercise ② Choose the correct Answer :

① 2.07 = ………… [$2\frac{7}{10}$, $2\frac{7}{100}$, $7\frac{2}{10}$, $7\frac{2}{100}$]

② 0.18 = ………… [$\frac{18}{10}$, $1\frac{8}{10}$, $\frac{18}{100}$, $1\frac{18}{100}$]

③ The value of the digit 5 in 21.351 is = ………… [5 , 0.5 , 0.05 , 0.005]

④ The value of the digit 2 in 42.035 is = ………… [2 , 0.2 , 0.02 , 0.002]

⑤ $\frac{18}{10}$ = ………… in decimal [0,018 , 0.18 , 10.8 , 1.8]

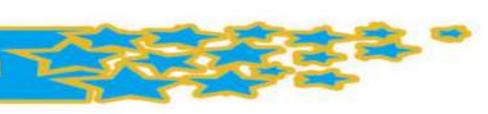
⑥ 8 Thousandths = ………………… [0.008 , 0.08 , 0.8 , 8,000]

⑦ 25 tenths = ………………… [0.025 , 0.25 , 2.5 , 25]

⑧ sixteen Thousandths = ………………… [16,000 , 1.6 , 0.16 , 0.016]

⑨ Which digit in the tenths place in the number 14.07 [0 , 4 , 1 , 7]

⑩ the place value of the digit 7 in the number 48,257 is …………………

[*thousands* , *tenths* , *hundredths* , *thousandths*]

Example ③ Answer the following :

① ● 63.24

In standard form : ……………………………

In word form : ……………………………

……………………………………………………

In unit form : ……………………………

② ● 23.07

In standard form : ……………………………

In word form : ……………………………

……………………………………………………

In unit form : ……………………………

Exercise ③ Answer the following :

① ● 5.284

In standard form : ……………………………

In word form : ……………………………

……………………………………………………

In unit form : ……………………………

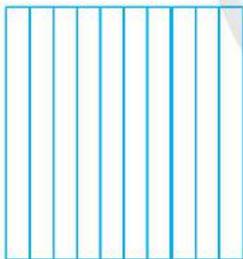
② ● 34.671

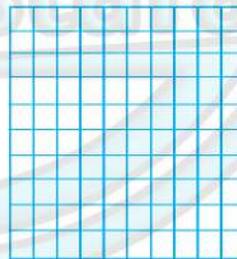
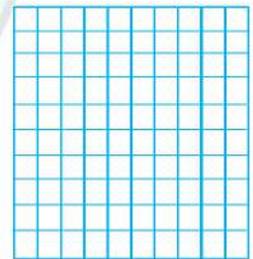
In standard form : ……………………………

In word form : ……………………………

……………………………………………………

In unit form : ……………………………

Example ④ Shade :

0.6

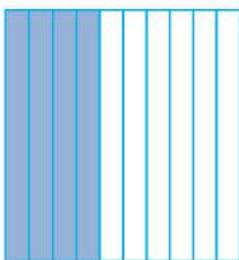
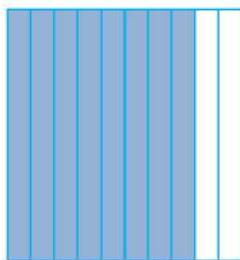
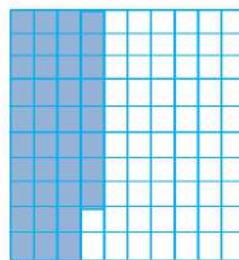
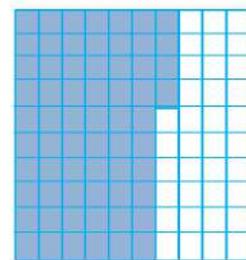
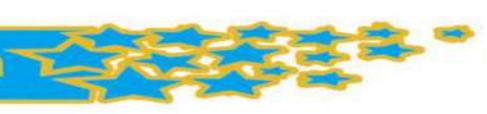
0.3

0.25

0.63

Exercise ④ Write the decimal :

…….

…….

…….

…….

Home Work

① Complete the following :

① 5.231.. (in expanded form)

② 1.002 .... (in expanded form)

③ $7 + 0.3 + 0.04 + 0.009 =$ .... (in standard form)

④ $40 + 0.8 + 0.07 =$.................. (in standard form)

⑤ Two and forty one thousandths =............................

⑥ seven hundred and seven hundredths = ...

⑦ ninety six and eight tenth = ... ⑧ 24 hundredths ....

② Choose the correct answer:

① 6 and 5 tenths = ... [0.65 , 5.6 , 6.5 , 6.05]

② 0.48 = ... $\left[\frac{48}{10} \quad , \quad 4\frac{8}{10} \quad , \quad \frac{48}{100} \quad , \quad 1\frac{48}{100} \right]$

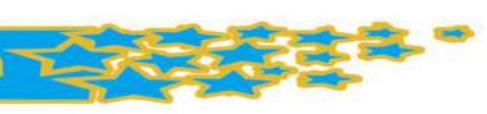
③ The value of the digit 3 in 21.351 is = ... [3 , 0.3 , 0.03 , 0.003]

④ The value of the digit 5 in 42.035 is = ... [5 , 0.5 , 0.05 , 0.005]

⑤ thirty four and six hundredths .... [34.06 , 34.6 , 6.43 , 34.006]

⑥ 49 Thousandths = ... [0.49 , 4.09 , 0.049 , 4.009]

⑦ the place value of the digit 4 in the number 18,243 is ....

[*thousands* , *tenths* , *hundredths* , *thousandths*]

Lessons 2&3

•Place value shuffle

•Composing and decomposing decimals

Learn Place value shuffle

● if a whole number or a decimals is multiplied by [10 , 100] , then each digit From this number moves to left [one , two] spot and The value of each digit increases [10 ,100] times .

	H	T	O	.	Tenths	hundredths	thousandths
		2	5	.	8	7	4
× 10	2	5	8	.	7	4	

Example① Complete the following:

① $2.5 \times 10 =$ ....

② $14.52 \times 10 =$ ....

③ $43 \times 100 =$ ....

④ $18.129 \times 100 =$ ......

⑤ $4.9 \times 10 =$ ....

⑥ $485.2 \times 100 =$ ......

⑦ $0.027 \times 100 =$ ....

⑧ $1.002 \times 10 =$ ....

⑨ $14.7 \times 100 =$ ......

Exercise①

① $4.6 \times 10 =$ ....

② $35.02 \times 10 =$ ....

③ $12 \times 100 =$ ....

④ $11.356 \times 100 =$ ......

⑤ $0.27 \times 10 =$ ....

⑥ $96.14 \times 100 =$ ......

⑦ $0.007 \times 100 =$ ....

⑧ $50.45 \times 10 =$ ....

⑨ $3.008 \times 100 =$ ......

6.5 X 10

= 65

The value of a whole number ......increase ......when multiplying by 10

The value of 6 ...increase ... when multiplying by 10 from ...6. To ...60..

The value of 5 ...increase .. when multiplying by 10 from ...0.5.. To ...5..

Learn Place value shuffle

- if a whole number or a decimals is divisible by [10 , 100] , then each digit From this number moves to right [one , two] spot on the place value chart and The value of each digit decreases [10 ,100] times.

	H	T	O	.	Tenths	hundredths	thousandths
		8	4	.	9	3	
÷ 10			8	.	4	9	3

Example ① Complete the following:

① 2.5 ÷ 10 = ...

② 4.52 ÷ 10 = ...

③ 43 ÷ 100 = ...

④ 18.12 ÷ 100 = ...

⑤ 4.9 ÷ 10 = ...

⑥ 485 ÷ 100 = ...

⑦ 0.07 ÷ 100 = ...

⑧ 1. 2 ÷ 10 = ...

⑨ 14.7 ÷ 100 = ...

Exercise ①

① 7.8 ÷ 10 = ...

② 4.52 ÷ 10 = ...

③ 43 ÷ 100 = ...

④ 18.12 ÷ 100 = ...

⑤ 4.9 ÷ 10 = ...

⑥ 485 ÷ 100 = ...

⑦ 0.07 ÷ 100 = ...

⑧ 1. 2 ÷ 10 = ...

⑨ 14.7 ÷ 100 = ...

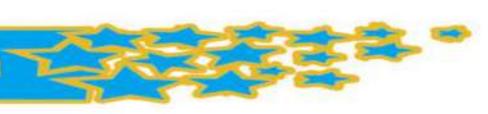
345 ÷ 10

= 34.5

The value of a whole number ......decrease.........when dividing by 10

The value of 3 ...decrease... when dividing by 10 from ...300.... To ...30.....

The value of 4 ...decrease.... when dividing by 10 from ...40..... To ...4.....

The value of 5 ...decrease.... when dividing by 10 from ...5..... To ...0.5.....

Learn 2 Composing and decomposing decimals

●**Composing** : decimals means [put together]

●**Decomposing** : decimals means [broken a part]

● you can decompose 843 .572 in different ways :

1st way	2nd way	3rd way
843 .572 =	843 .572 =	843 .572 =
800+40+3+0.5+0.07+0.002	843+0.5+0.07+0.002	843+0.572

Example ① Compose each of the following :

① 4000 + 80 + 7 + 0.1 + 0.002 =………

 420 + 0.2 + 0.07 + 0.009 = …………..

③ 60 + 8 + 0.6 + 0.01 + 0.003 =

 600 + 7 + 0.2 + 0.09 + 0.005 = ………..

⑤ 700 + 0.4 + 0.009 = ………………………

 0.3 + 0.008 + 0.05 = ……………..

⑦ 90 + 0.9 + 0.009 = ………………………

⑧ 0.7 + 0.006 + 0.03 = ……………..

Exercise ① Compose each of the following :

① 100 + 30 + 7 + 0.2 + 0.001=…………

 541 + 0.6 + 0.004 = …………..

③ 50 + 1 + 0.6 + 0.02 + 0.009 = …………

④ 400 + 7 + 0.09 + 0.001 = ………..

⑤ 400 + 0.4 + 0.004 = …………………

⑥ 0.6 + 0.007 + 0.03 = ……………..

⑦ 70 + 0.01 + 0.002= ………………………

⑧ 0.01 + 0.001 + 0.1 = ……………..

Example② *Decompose the following numerals using expanded form :*

① 640.078 = ……………………………………………………………

② Twenty three and forty two thousandths = ………………………………

③ 65.12 = ……………………………………………………………

④ Ninety one and six hundredths = ……………………………

⑤ 3000.428 = ……………………………………………………

⑥ Ninety two thousandths = ……………………………………………………

Exercise② *Complete each of the following :*

① 4.208 = ……….. + 0.2 + 0.008

④ 57 thousandths = 0.007 + ……………

② ……………. = 4 + 0.005 + 0.3

③ 283 thousandths = ………… + 0.2 + 0.08

⑤ seventy and eight thousandths = ………… + …………………

Exercise③ *Match the cards that have the same numeral .*

78.42 ÷ 10	700 + 84 + 0.2
78.42 × 10	7000+ 800 + 40 + 2
7842 hundredths	78,000 + 400 +20
7842 tens	7 + 0.842
78.42 × 10	70 + 8 + 0.4 + 0.02

Home Work

①choose the correct answer :

1) The number four and forty one thousandths in standard form is …………

a- 4.41 b) 4.041 c) 410.4 d) 4.401

2) The value of the digit in tenths place in the number 7.024 is ……….

a- 0.1 b- 0 c- 0.004 d- 0.02

3) Place value of the digit 4 in the number 27.614 is ………

a- Tenths b- hundredths c- thousandths d- ones

4) Which number of the following has 3 hundredths , 7 ones , 2 thousandths ?

a- 0.732 b- 3.72 c- 7.032 d- 3.702

5) Seventeen thousandths = …………

a- 170 b- 0.17 c- 0.017 d- 1.07

6) What is the standard form for : $60 + 3 + 0.5 + 0.004$?

a- 63.54 b- 63.054 c- 63.504 d- 6.354

7) 215 hundredths = …………………………………………. [in expanded form]

a- $200 + 10 + 5$ b- $20 + 1 + 0.5$ c- $2 + 0.1 + 0.05$ d- $200 + 0.1 + 0.05$

8) $72.43 \times 10 =$ ……………..

a- 7.243 b- 72.34 c- 7243 d- 724.3

9) $43.12 \div 10 =$ ………

4.312 b- 431.2 c- 4312 d- 43.21

Complete

① 12 hundredths = 10 + …………

② …………… = $600 + 3 + 0.3 + 0.006$

③ 45.12 x 10 =……………..

④ $394.6 \div 100 =$ ………………

⑤ 43.67 x ………… = 4367

⑥ $493.7 \div$ ………….. = 49.37

Lesson 4

Comparing decimals

Learn to compare between two decimals begin with :

1st : Compare the whole number
2nd : compare tenths
3rd : compare hundredths
4th : compare thousandths

Example ① Circle the greater :

① 0.6 or 1.2
② 0.723 or 0.8
③ 4.5 or 4.18
④ 70 or 69.34
⑤ 4.1 or 4.001
⑥ 0.234 or 0.235

Example ② put the sign (> , = , <)

① 50.009 ◯ 50.100
② 2.01 ◯ 2.099
③ 45.057 ◯ 45.1
④ 10. ◯ 10.011
⑤ 34.5 ◯ 34.500
⑥ 4.904 ◯ 4 + 0.9 + 0.004

Exercise ① Choose the correct answer :

① 3.24 ……………….. 3.239 [> , < , = , ≤]

② 19 hundredths ………19 thousandths [> , < , = , ≤]

③ Which is the greater than 1.72 ? [1.27 , 1.07 , 1.8 , 1.072]

④ All the following are equal except ………… [0.300 , 0.003 , 0.3 , 0.30]

⑤ Which of the following is true ?

a- 0.532 > 0.537
b- 0.1 + 3 < 1.3
C – 1.019 > 1.1
d- $\frac{18}{10} = 1.8$

Home Work

30

① Compare the decimals using the symbols [> , = , <]

①	0.3 ◯ 0.123		②	0.013 ◯ 0.031
③	50.009 ◯ 50.100		④	45.057 ◯ 45.100
⑤	0.10 ◯ 0.100		⑥	0.480 ◯ 0.480
⑦	87.3 ◯ 87.03		⑧	2.197 ◯ 2.2
⑨	0.030 ◯ 0.03		⑩	1.7 ◯ 2.04

Exercise① Choose the correct answer :

① 2.24 ………………. 3.238 [> , < , = , ≤]

②15 hundredths ……… 15 thousandths [> , < , = , ≤]

③Which is the greater than 3.75 ? [3.25 , 3.05 , 3.7 , 3.8]

④All the following are equal except ………… [0.400 , 0.004 , 0.4 , 0.40]

⑤Which of the following is true ?

a- 0.357 > 0.537 b- 0.357 > 0.375

C – 0.573 > 0.537 d- 0.357 > 0.537

Lesson 5

rounding decimals

Learn 1st way Midpoint strategy

Example ① Use midpoint strategy to round each of the following :

① 19.7 ≈ ……………. To the nearest whole number

② 3.54 ≈ ……………. To the nearest tenths

③ 6.839 ≈ ……………. To the nearest hundredths

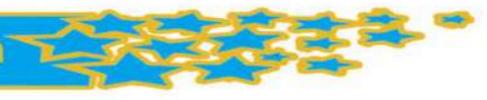
④ 3.7218 ≈ ……………. To the nearest thousandths

Exercise ① Use midpoint strategy to round each of the following :

① 4.37 ≈ ……………. To the nearest whole number

② 715.68 ≈ ……………. To the nearest tenths

③ 0.852 ≈ ……………. To the nearest hundredths

④ 1.8536 ≈ ……………. To the nearest thousandths

Learn 2nd way rounding rule strategy

Example ① Use place value strategy to round each of the following :

① 0.7 ≈ .... (to the nearest Whole number)

② 5.49 ≈ .... (to the nearest tenths)

③ 0.874 ≈ .... (to the nearest hundredths)

④8.090 ≈ .... (to the nearest tenths)

⑤58.936 ≈ .... (to the nearest ten hundredths)

⑥2.7365 ≈ .... (to the nearest thousandths)

⑦69.4657 ≈ .... (to the nearest thousandths)

⑧3.875≈ .... (to the nearest Whole number)

Exercise ① Use place value strategy to round each of the following :

Round to the nearest whole number .

a- 0.7 ≈ .... b- 10.18 ≈............ C- 24.58 ≈ ....

d- 4.87 ≈ .... e- 12.287 ≈ .... f- 0.006 ≈ ....

Round to the nearest tenths .

a-13.75 ≈ .... b- 83.914 ≈ .... c- 90.09 ≈ ....

d- 0.208 ≈ .... e- 43.95 ≈ .... f- 0.07 ≈ ....

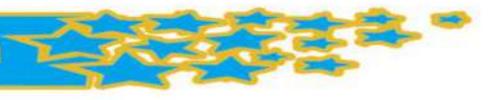
Round to the nearest hundredth :

a- 76.514 ≈ .... b- 0.737 ≈ .... c- 0.996 ≈ ....

d- 5.548 ≈ .... e- 6.342 ≈ .... f- 1.681 ≈ ....

round to the nearest thousandth :

a- 2.4538 ≈ .... b- 0.4532 ≈ .... c- 1.7645 ≈ ....

d- 8.4397 ≈ .... E- 4.7801 ≈ .... f- 0.0049 ≈ ....

Home Work

① *Complete :*

①4.478 ≈ …………. To the nearest tenths .

②0.5219 ≈ …………… to the nearest thousandths .

③4.23 ≈ …………. To the nearest whole number .

④6.452 ≈ …….. to the nearest hundredths .

② *Choose the correct answer :*

① Round 8.099 to the nearest tenths ≈ …………….

a- 7.00 b- 8.08 c- 8.090 d- 8.1

② Round 2.5698 to the nearest thousandths ≈ …………….

a- 2.569 b- 2.560 c- 2.57 d- 2.568

③ 42.81 ≈ ……………. to the nearest whole number

a- 42.8 b- 43 c- 42 d- 44

④ 160.745 ≈ ……………. to the nearest tenths

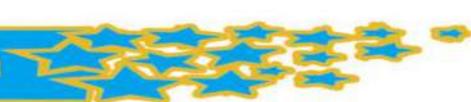
a- 160.7 b- 160.8 c- 161.0 d- 160.75

⑤ Which number could be rounded to 0.58

a- 0.589 b- 0.57 c- 0.59 d- 0.577

⑥ 49.386 ≈ 49.4 to the nearest …………………..

a- whole number b- tenths c- hundredths d- thousandths

③ *Mazen is a planning a trip from Cairo to Wadi Elryan . he will travel 147.72 kilometers . round the distance to the nearest tenths ?*

Lesson 6

Estimating decimals sum

Learn Estimation is a way to get a number that is close to the actual answer but not exact

1st Front - end estimation strategy

Example ① Estimate each of the following sums by using front - end estimation

① 3.41 + 5.22 = ……… + ………= ………

② 41.925 + 52.236 = …… +……= ………

③ 16.79 + 3.65 = …… + ………= ………

④ 45.2 + 3.7 = ……… + ……… = ……..

⑤ 77.6 + 6.54 = ……… + ……… = ……..

⑥ 7.36 + 3.84 = ……… + ……… = ……..

Exercise ① Estimate each of the following sums by using front - end estimation

① 2.71 + 5.22 = ……… + ………= ………

② 3.785 + 12.035 = ……… +………= ……

③ 6.99 + 3.65 = ……… + ………= ………

④ 8.450 + 15.3 = …… + …… = ……….

⑤ 70.9 + 3.54 = ……… + ……… = ……..

⑥ 47.36 + 3.84 = …… + ……… = ……..

2nd Benchmark decimals 0 , $\frac{1}{2}$ and 1

Example ② Estimate each of the following sums by using benchmark

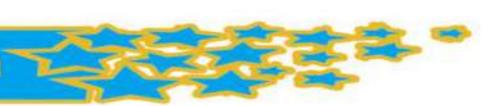
① 0.31 + 0.22 = ……… + ………= ………

② 0.785 + 0.035 = ……… +………= ……

③ 6.42 + 3.15 = ……… + ………= ………

④ 8.450 + 15.3 = …… + …… = ……….

⑤ 70.9 + 3.54 = ……… + ……… = ……..

⑥ 47.36 + 3.84 = …… + ……… = ……..

3rd Rounding strategy

Example ③ Estimate each of the following sums by using rounding

① 0.7+ 3.45 ≈ ………………………………………… (to the nearest Whole number)

② 5.49+ 31.75 ≈ ……………………………………………… (to the nearest tenths)

③ 0.874 + 3.452 ≈ ………………………………… (to the nearest hundredths)

④ 8.090 + 1.47 ≈ ………………………………………… (to the nearest tenths)

⑤ 58.936 + 41.643 ≈ ……………………………… (to the nearest ten hundredths)

⑥ 2,736.5 + 4,235.6 ≈ ………………………………… (to the nearest thousands)

⑦ 169.46 + 356.47≈ ……………………………… (to the nearest thousandths)

⑧ 3.875 + 15.15≈ …………………………………… (to the nearest tenths)

Exercise ② Estimate each of the following sums by using benchmark

① 2.61 + 2.22 = ……… + ………= ………

② 3.159 + 12.035 = ……… +………= ……

③ 61.4 + 3.65 = ……… + ………= ………

④ 8. 52 + 35.3 = …… + …… = ……….

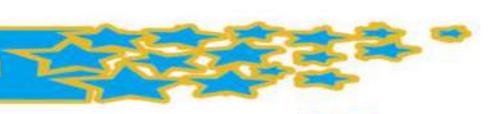
⑤ 13.9 + 3.14 = ……… + ……… = ……..

⑥ 37.36 + 3.44 = …… + ……… = ……..

Exercise ③ Estimate each of the following sums by using benchmark

① 47.52 + 2.032 = ……… + ………= ……… (to the nearest tenths)

② 7.123 + 12.007 = ……… +………= ……… (to the nearest hundredths)

③ 52.4 + 3.65 = ……… + ………= ……… (to the nearest whole number)

Home Work

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① Estimate each of the following sums by using front - end estimation

① $3.45 + 5.63 =$ ……… + ………= ………

② $15.81 + 12.35 =$ ……… +………= ……

③ $6.28 + 3.65 =$ ……… + ………= ………

④ $8.45 + 15.3 =$ …… + …… = ……….

⑤ $8.9 + 3.84 =$ ……… + ……… = ……..

⑥ $7.36 + 13.34 =$ …… + ……… = ……..

② Estimate each of the following sums by using benchmark

① $5.42 + 7.63 =$ ……… + ………= ………

② $4.75 + 23.25 =$ ……… +………= ……

③ $6.85 + 3.65 =$ ……… + ………= ………

④ $15.6 + 35.2 =$ …… + …… = ……….

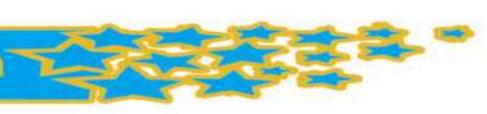
⑤ $13.32 + 3.24 =$ ……… + ……… =

⑥ $17.36 + 3.94 =$ …… + ……… = ……..

③ Estimate each of the following sums by using benchmark

① $27.52 + 2.32 =$ ……… + ……… = ……… (to the nearest tenths)

② $7.153 + 12.037 =$ ……… +……… = ……… (to the nearest hundredths)

③ $72.4 + 5.15 =$ ……… + ……… = ……… (to the nearest whole number)

Lesson 7

Adding decimals

Learn To Add two decimals begin with :

1st : Add decimals in thousandths place

2nd : Add decimals in hundredths place

3rd : Add decimals in tenths place

4th : Add whole part left the point

Example ① Add :

① $2.51 + 6.23 =$ ……..

② $85.14 + 4.73 =$ ……..

③ $3.425 + 7.751 =$ ……..

④ $4.75 + 6.23 =$ ……..

⑤ $42.23 + 75.453 =$ …….

⑥ $6.452 + 12.3 =$ ……..

⑦ $0.32 + 5.6 =$ ……..

⑧ $8 + 1.75 =$ ……..

⑨ $45.7 + 51 =$ ……..

⑩ $79.004 + 23.02 =$ ……..

⑪ $0.005 + 0.5 =$ ……..

⑫ $2.82 + 7.751 =$ ……..

⑬ 3 tenths + 5 hundredths + 4 thousandths = ……………………………………………………

⑭ 8 thousandths + 4 thousandths = …………………………………………………… thousandths

⑮ 3 hundredths + 85 thousandths = …………………………………………………… thousandths

Exercise ① Add :

① $15.6 + 12.45 =$ ……..

② $26.14 + 4.035 =$ ……..

③ $0.23 + 54 =$ ……..

⑬ 5 hundredths + 7 tenths + 2 thousandths = ……………………………………………………

⑭ 3 thousandths + 32 hundredths = …………………………………………………… thousandths

Home Work

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① Add :

① $6.55 + 6.23 =$ ....

② $35.14 + 4.78 =$ ....

③ $3.625 + 6.751 =$ ....

④ $2.75 + 6.28 =$ ....

⑤ $22.22 + 35.453 =$ ....

⑥ $6.152 + 12.5 =$ ....

⑦ $0.3 + 5.65 =$ ....

⑧ $4 + 2.25 =$ ....

⑨ $43.6 + 21 =$ ....

⑩ $19.008 + 20.02 =$ ....

⑪ $0.001 + 0.1 =$ ....

⑫ $2.38 + 4.731 =$ ....

⑬ 5 tenths + 2 hundredths + 7 thousandths = ...

⑭ 3 thousandths + 2 thousandths = ... thousandths

⑮ 7 hundredths + 46 thousandths = ... thousandths

② Choose the correct answer :

1) $4.7 + 3.8 =$......................

a- 7.15 b- 8.5 c- 8.8 d- 15

2) 4 hundredths + 35 thousandths = ... thousandths

a- 0.39 b- 0.039 c- 75 d- 0.075

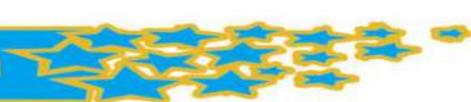
3) The estimation of $49.872 + 50.011$ is ....

a- 99 b- 100 c- 101 d- 102

4) $0.03 + 0.003 =$ ....

a- 0.6 b- 0.66 c- 0.33 d- 0.033

5) 71 hundredths + 9 hundredths = ...tenths

a- 88 b- 80 c- 800 d- 8

Subtracting decimals

Example ① Estimate:

① 35.9 − 10.8 estimate ……………….. ② 2.419 − 1.240 estimate ………….

③ 0.951 − 0.729 estimate ……………… ④ 2.62 − 1.59 estimate ………………

Exercise ① Estimate:

① 43.9 − 10.6 estimate ……………….. ② 5.352 − 2.242 estimate ………….

③ 0.842 − 0.731 estimate ……………… ④ 8.47 − 6.53 estimate ………………

Example② Find the result :

① 5.473 – 3.362 = ………………………. ②6.4 − 5.378 = ……………………….

③ 12.74 – 0.359 = ………………………. ④ 0.9 − 0.889 = ……………………….

⑤ 0.5 – 0.375 = ………………………. ⑥ 8.36 − 5.72 = ……………………….

⑦ 57 thousandths – 12 thousandths = ………… thousandths

Exercise ② Find the result :

① 5.324 – 2.342 = ………………………. ② 3.3 − 2.378 = ……………………….

③ 6.74 – 0.56 = ………………………. ④ 0.5 − 0.289 = ……………………….

⑧ 2 hundredths – 15 thousandths = …………. Thousandths

⑨ 7 tenths – 3 thousandths = ……………. Thousandths

Answer :

- a man bought some goods for 306.7 L.E . and sold them for 366.95 L.E. find The profit ?

- Ali has 24.75 L.E. and Ahmed has 15.25 L.E. find how much money Ali and Ahmed have together ?

- Ibrahim had 53.75 L.E. he spent 35.05 L.E. find the remainder with him ?

To think Complete :

① ………… + 54.8 = 77.59

② 47.85 + …………. = 100

③ 6.27 – ………… = 3.286

④ ………. – 41.41 = 3.8

Home Work

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① Subtract :

1. $8.55 - 6.23 =$ ……..

2. $35.14 - 4.78 =$ ……..

3. $16.25 - 6.75 =$ ……..

4. $5.75 - 2.281 =$ ……..

5. $35.12 - 35.453 =$ …….

6. $6.152 - 4.5 =$ ……..

7. $0.3 - 0.065 =$ ……..

8. $4 - 2.25 =$ ……..

9. $43.6 - 21 =$ ……..

10. $19.008 - 15.02 =$ ……..

11. $0.1 - 0.001 =$ ……..

12. $01.38 - 4.731 =$ ……..

13. 2 hundredths − 7 thousandths = ………………………………………………………

14. 7 thousandths − 2 thousandths = ……………………………………………………. thousandths

15. 7 hundredths − 46 thousandths = ……………………………………………………. thousandths

②Choose the correct answer :

1) $4.7 - 3.8 =$……………………

b- 7.15 b- 8.5 c- 1.1 d- 7.1

2) 4 hundredths − 35 thousandths = …………….. thousandths

b- 0.05 b- 0.005 c- 15 d- 0.015

3) The estimation of $49.872 - 38.752$ is …………….

b- 9 b- 100 c- 101 d- 12

4) $0.03 - 0.003 =$ ……….

b- 0 b- 0.66 c- 0.33 d- 0.027

5) 71 hundredths − 1 hundredths = …………….tenths

b- 7 b- 72 c- 80 d- 8

Unit 2

Lessons 1-3

expression, equation and variables
Variables in Equation

Learn

mathematical expression

is statement contains numbers or numbers and symbol Separated by one or more operations as [+ , − , × and ÷] and does not contain the equal sign [=]

Ex : $34 + 86$ and $56 + m$

Equation

is mathematical expression contains the equal sign [=]

EX : $24.8 - k = 17.5$

$4.2 + 1.5 = x$

$4.2 + 1.5 = 8.9 - 3.2$

Example ① Choose equation , expression or neither :

① $3.6 + 1.2 = x$ [*equation* or *expression* or *neither*]

② $14.78 - 3.4$ [*equation* or *expression* or *neither*]

③ $14 \times 7 = M$ [*equation* or *expression* or *neither*]

④ $3.4 + L$ [*equation* or *expression* or *neither*]

⑤ $15.8 + 7.13$ [*equation* or *expression* or *neither*]

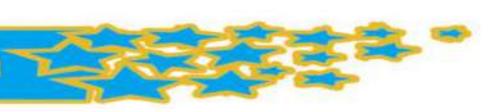
⑥Amir had 3.4 kg of apples and 2.7 kg of figs [*equation* or *expression* or *neither*]

Example ② Write an equation

① 12. 5 plus a number equal 15 ……………………………..

② subtract a number from 5.63 equal 3.154 ……………………………..

③ Ahmed 52 L.E. and his sister has 84 L.E. the equation which represent the total amount is …………………………………

④ Ali saved 147 L.E. in two weeks , if he saved 93 L.E. in the first week , then the equation that represent what he save in the second week is ……………………………..

Learn Variables in Equations

Solving equation means finding the variable in the equation .

Example ① Solv the following equations :

① $a + 19.5 = 30.8$

a = ...

② $23.15 + b = 31.37$

b = ...

③ $12.7 + 6.05 = c$

c = ...

④ $d + 45.17 = 57.8$

d = ...

⑤ $m - 4.25 = 11.75$

m = ...

⑥ $1.2 = 2.4 - r$

r = ...

⑦ $3.64 - h = 8.4$

h = ...

⑧ $7.45 - 3.42 = k$

k = ...

Exercise ① Solv the following equations :

① $f + 10.5 = 16.8$

f = ...

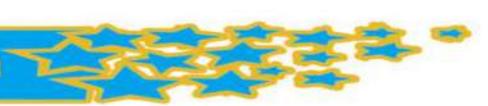
② $8.4 - n = 3.25$

n = ...

③ $y - 1.25 = 9.17$

y = ...

④ $15.6 + e = 28.37$

e = ...

Example ② Solve the equation :

① $8.23 + p = 10.24$ then $p =$ ……………………

② $t - 2.45 = 0.26$ then $t =$……………………

③ $15 - x = 8.23$ then $x =$ …………………………

④ $v + 45.8 = 64.9$ then $v =$ ………………………

Exercise ① Find the value of variable in the following bar models :

①

X	
34.75	19.051

then $x =$ …………

②

78.514	
a	29.125

then $a =$ …………

③

35.7	
h	18.07

then $h =$ …………

④

m	
16.47	12.03

then $m =$ …………

⑤

73.015	
10.714	y

then $y =$ …………

⑥

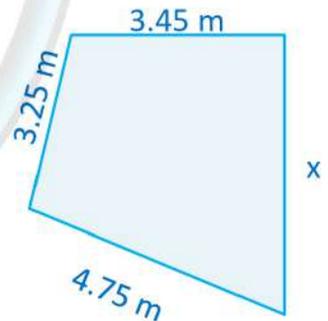
85.02	
c	53.63

then $y =$ …………

To think if the perimeter of this shape is 16.70 m

What does x equal ? ………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

⑦ Ola needed 10 meters of wood to build a garden bed . She found 3.5 m in here garage how many more meters of wood does she need

For the bed ? ……………………………………………………………………………

⑧ the weight of Mariam is 35.235 kg . and the weight of Lucy is 42.012 kg .

What is there weight together ?

……………………………………………………………………………………………

Home Work

① Choose the correct answer :

① If $p + 3.562 = 4.213$, then p= …………

a- 1　　b- 2　　c- 3　　d- 2.001

② If $3.462 - x = 1.451$, then x= …………

a- 4.913　　b- 2.001　　c- 2.011　　d- 4.914

③ If $m - 3.459 = 4.213$, then m = …………

a- 0.754　　b- 1.672　　c- 0.632　　d- 7.672

④ from opposite bar model the value of y = …………

8.368	
y	5.03

a- 13.4　　b- 3.336　　c- 10.456　　d- 2.832

⑤ Which of the following bar model is suitable the equation $5.01 - h = 3.17$?

a-

h	
5.01	3.17

b-

5.01	
h	3.17

C –

3.17	
5.01	h

d-

h	
3.17	1.84

② Solve each of the following equation :

① $2.342 + n = 3.418$ …………………………

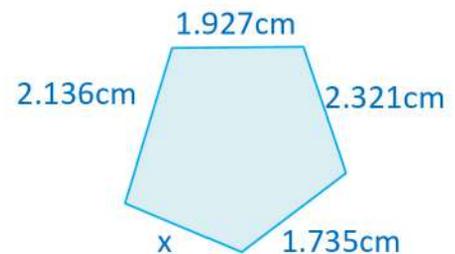
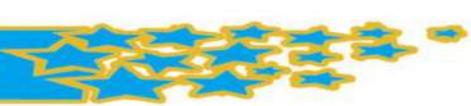
② $w - 4.143 = 6.150$ …………………………

③ $5.235 + p = 10.462$ ………………………

④ $c - 3.425 = 2.520$ …………………………

⑤ $23.024 + k = 25.130$ ………………………

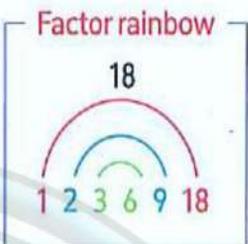
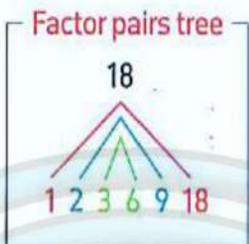
③ In the opposite figure , the perimeter of the shape

Is 10.177 cm then the value of x = …………… :

Lesson 4

Prime factorization

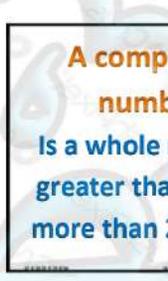
Learn Prime factorization

Remember Find all factors of 18

But not all of these numbers are prime numbers !

Factor T-chart

18	
1	18
2	9
3	6

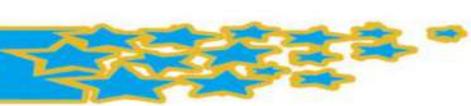
, then the factors of 18 are : 1 , 2 , 3 , 6 , 9 and 18.

A prime number
Is a whole number has only 2 different factors 1 and itself

A composite number
Is a whole number greater than 1 has more than 2 factors

A prime number

2	3	5	7	11	13	17	19	23	29	31	37	
41	43	47	53	59	61	67	71	73	79	83	89	97

Note

- 1 is neither prime nor composite because it has only one factor
- 2 is the smallest prime number
- All prime numbers are odd except 2

How can you write a number as a product of prime factor ?

Every composite number can be written as product of prime number . this product

The prime factorization of a number .

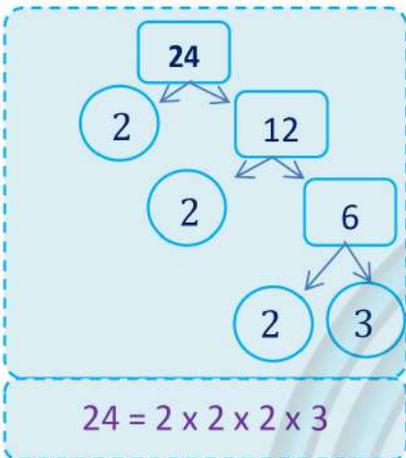
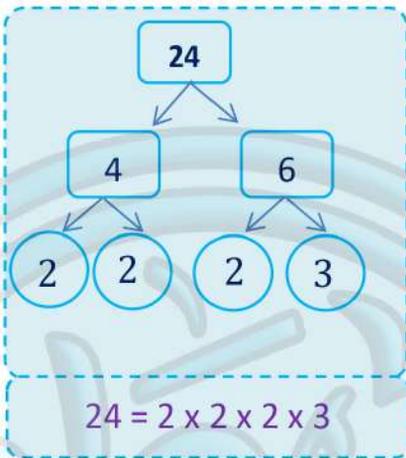
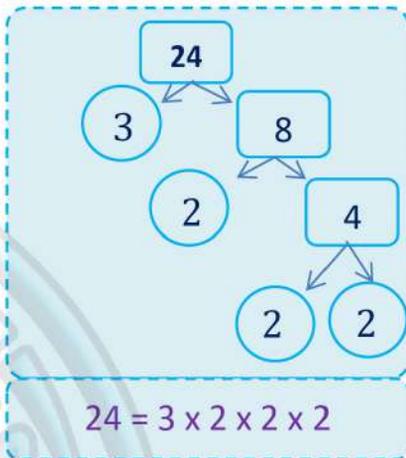
Learn Find the prime factorization for 24

24 = 2 x 2 x 2 x 3

Or

24 = 2 x 2 x 2 x 3

Or

24 = 3 x 2 x 2 x 2

Example① Factorize to a prime factors :

12

12 = ...

30

30 = ...

28

28 = ...

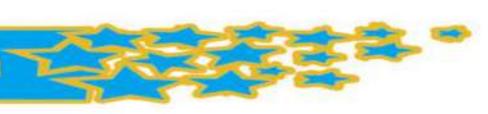
16

16 = ...

45

45 = ...

40

40 = ...

Example ② **Complete**

① 2 , 5 , 7 are the prime factors of ....

② 3 , 3 , 3 are the prime factors of ....

③ 2 , 2 , 5 are the prime factors of ....

Exercise ① **Factorize to its prime factor :**

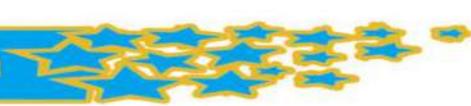
15	18	36
15 = ...	30 = ...	28 = ...

9	16	63
16 = ...	45 = ...	40 = ...

Exercise ② **Complete**

① 2 , 2 , 2 are the prime factors of ....

② 2 , 3 , 3 are the prime factors of ....

③ 3 , 3 , 5 are the prime factors of ....

Home Work

15

① **Complete**

① 2 , 2 , 7 are the prime factors of ....

② 2 , 3 , 5 are the prime factors of ....

③ 2 , 5 , 7 are the prime factors of ....

② **Factorize to its prime factor :**

8	32	10
8 = ...	32 = ...	10 = ...

48	56	44
48 = ...	56 = ...	44 = ...

Lesson 5

Greatest common factor (GCF)

How can you find greatest common factor of 18 and 24 [GCF]

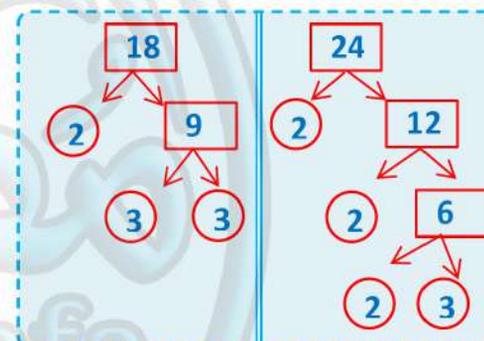
First way using listing method :

1- find the factor of each number
2- determine the common factors of these number
3- get the greatest factor of the common factor .

- factors of 18 : 1 , 2 , 3 , 6 , 9 , 18
- factor of 24 : 1 , 2 , 3 , 4 , 6 , 8 , 12 , 24
- common factors : 1 , 2 , 3 , 6
- the greatest common factor [GCF] : 6

G..C.F of 18 and 24 = 6

Second way using prim factorization :

1- factorize each number to its prime factors .
2- find the common prime factor .
3- find the product of this prime factor .

G..C.F of 18 and 2 X 3 = 6

Example ① **Find the [GCF] of the given numbers :**

G..C.F of 8 and 16 = ………………………………

G..C.F of 12 and 18 = ………………………………

③ 30 and 42

G..C.F of 30 and 42 = ………………………………

④ 24 and 32

G..C.F of 24 and 32 = ………………………………

Exercise ① Find the [G.C.F] of the given numbers :

① 40 and 50

G..C.F of 40 and 50 = ………………………………

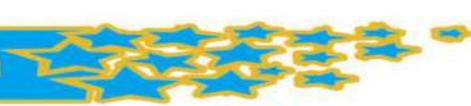
② 45 and 81

G..C.F of 45 and 81 = ………………………………

③ 12 and 18

G..C.F of 12 and 18 = ………………………………

④ 15 and 25

G..C.F of 15 and 25 = ………………………………

Home Work

18

①Find the [G.C.F] of the given numbers :

① 15 and 20

G..C.F of 15 and 20 = ………………………………

② 45 and 30

G..C.F of 45 and 30 = ………………………………

③ 21 and 42

G..C.F of 21 and 42 = ………………………………

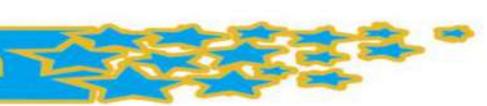
④ 24 and 36

G..C.F of 24 and 36 = ………………………………

③ 16 and 18

G..C.F of 16 and 18 = ………………………………

④ 20 and 35

G..C.F of 20 and 35 = ………………………………

Lessons 6 - 7

Identify multiples
Least common multiple (L.C.M)

Learn A multiple *is the product of multiply the given number by other numbers*

Zero is common multiple of all numbers

Ex : ① multiples of 2 are 0,2,4,6,8,10,12,14,16,18,20,……….. and so on.

All even numbers are multiple of 2

② multiples of 3 are 0,3,6,9,12,15,18,21,24,27,30,……….. and so on.

All numbers that the sum of its digit 3,6,9,12,15,18,….. are multiple of 3

③ multiples of 5 are 0,5,10,15,20,25,30,35,40,45,50,……….. and so on.

All numbers that the ones digit is 0 or 5 are multiple of 5

Exercise① List 4 multiple for each of the following

① 4 ➡ ------------------------

② 6 ➡ ------------------------

③ 8 ➡ ------------------------

④ 10 ➡ ------------------------

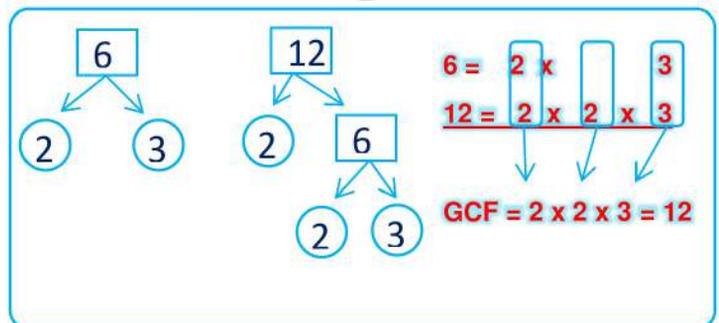
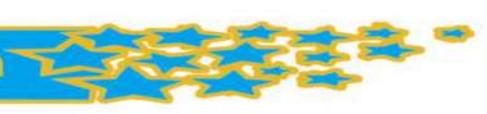
Learn A common multiple *is a multiple of two or more numbers*

Least common multiple [L.C.M] IS smallest multiple [other than 0] that two Or more numbers have in common .

Example①

1st way

6 and 12
6 = 0 , 6 , 12 , 18 , 24 , 30, ……
12 = 0 , 12 , 24 , 36 , …………
Common multiples: 0 , 12 , 24 , ……. *G.C.F is : 12*

2nd way

Example② find (L.C.M) for each of the following :

① 2 and 3

----

② 4 , 6 and 9

Exercise① find (L.C.M) for each of the following :

① 4 and 6

----

② 6 and 8

Exercise② Choose the correct answer:

① *which of the following is a multiple of 5 ?* [52 , 56 , 14 , 45]

② *The number that is not multiple of* 3 *is* …… [3 , 21 , 13 , 36]

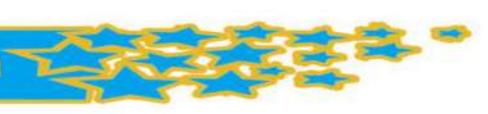
③ 20 *is multiple of* ………… [3 , 6 , 8 , 10]

④ *Which is a common multiple of* 5 *and* 8 …… [20 , 40 , 35 , 45]

⑤ *The L.C.M of* 6 *and* 10 *is* ..……… [6 , 10 , 30 , 60]

⑤ *The L.C.M of* 2 *and* 5 *is* ..……… [5 , 10 , 30 , 60]

⑤ *The L.C.M of* 5 *and* 6 *is* ..……… [6 , 10 , 30 , 60]

⑤ *The L.C.M of* 2 , 8 *and* 6 *is* ..……… [24 , 45 , 48 , 80]

Home Work

① Choose the correct answer:

① $The\ number\ that\ is\ multiple\ of\ 3\ is\ \dots\dots\dots\dots$ [7 , 16 , 24 , 46]

② $The\ number\ that\ is\ not\ multiple\ of\ 3\ is\ \dots\dots$ [3 , 9 , 23 , 27]

③ $30\ is\ multiple\ of\ \dots\dots\dots\dots$ [3 , 6 , 10 , all previous]

④ $Which\ is\ a\ least\ common\ multiple\ of\ 5\ and\ 10\ \dots$ [10 , 15 , 20 , 50]

⑤ $The\ L.C.M\ of\ 3\ and\ 9\ \dots\dots$ [3 , 6 , 9 , 18]

⑥ $The\ L.C.M\ of\ 4\ and\ 6\ \dots\dots$ [4 , 6 , 12 , 24]

② Complete :

① The *common multiple of all numbers is ………………*

② *All even numbers are multiple of ………….*

③ *All numbers that the ones digit is 0 or 5 are multiple of …………..*

④ $The\ L.C.M\ of\ 6\ and\ 15\ is\ \dots\dots\dots\dots\dots\dots\dots$

⑤ $\dots\dots\dots\dots.\ is\ L.C.M\ of\ 3\ and\ 5$

③ Find (L.C.M) for each of the following :

① 3 and 4	② 10 and 8
------------------------------------	------------------------------------
------------------------------------	------------------------------------
------------------------------------	------------------------------------
------------------------------------	------------------------------------

Lesson 8

Factors or multiples ?

Learn

$3 \times 5 = 15$	$4 \times 7 = 28$
3 → Factor, 5 → Factor, 15 → Multiple	4 → Factor, 7 → Factor, 28 → Multiple
3 and 5 are factors of 15	4 and 7 are factors of 28
15 is multiples of 3 and 5	28 is multiples of 4 and 7

Example ① Complete the following :

① If $2 \times 4 = 8$, then 2 and 4 are a factors of ………………

② If $3 \times 7 = 21$, then 21 is a multiple of ………………

③ 6 is a multiple of …………..   ④ 6 is a factor of …………

⑤ ……………. is a multiple of 8   ⑥ ……………. is a factor of 8

Exercise ① Choose Factor or Multiple to each of the following :

① 6 is a ……… of 3 [Factor or Multiple]

② 4 is a ……… of 12 [Factor or Multiple]

③ 15 is a ……… of 3 [Factor or Multiple]

④ 24 is a ……… of 8 [Factor or Multiple]

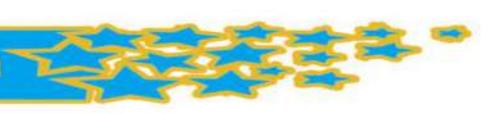
⑤ 14 is a ……… of 7 [Factor or Multiple]

⑥ 9 is a ……… of 27 [Factor or Multiple]

⑦ 8 is a ……… of 4 [Factor or Multiple]

⑧ 5 is a ……… of 30 [Factor or Multiple]

⑨ 10 is a ……… of 5 [Factor or Multiple]

⑩ 6 is a ……… of 18 [Factor or Multiple]

Relation between G.C.F and L.C.M

Example ① Find GCF and LCM for each of the following:

① 18 and 24

② 12 and 16

③ 10 and 12

④ 8 and 20

Exercise ① Find GCF and LCM for each of the following:

Home Work

25

①Choose the correct answer:

① *The number 6 is a multiple of* ……… [3 , 12 , 24 , 60]

②*The number 27 is not multiple of 3 is* …… [3 , 9 , 7 , 27]

③30 *is a factor of* ……… [3 , 6 , 10 , 30]

④*Which is L.C.M of* 2 *and* 10 … [10 , 15 , 20 , 50]

⑤ *The G.C.F of* 3 *and* 9 …… [3 , 6 , 9 , 18]

②Find GCF and LCM for each of the following:

① 6 and 8

② 12 and 18

③ 15 and 12

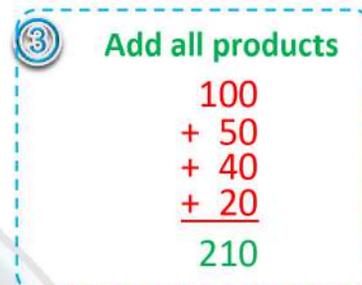
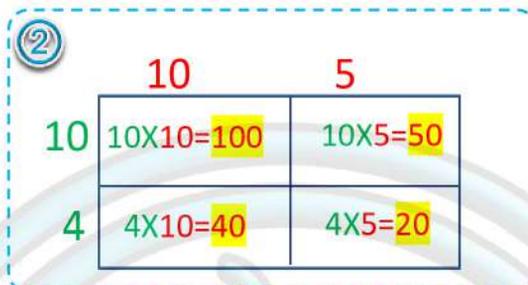
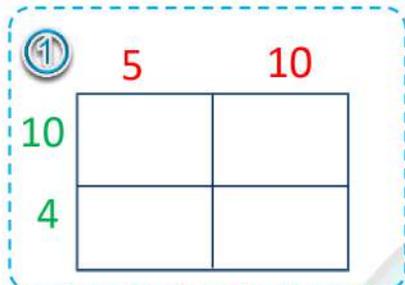
 9 and 36

Unit 3

Lesson 1

Using the area model to multiply

Learn Area of rectangle = length x width $A = L \times W$

We can use area of a rectangle to find 14×15 as following

①

	5	10
10		
4		

②

	10	5
10	10X10=100	10X5=50
4	4X10=40	4X5=20

③ Add all products

  100
+ 50
+ 40
+ 20
  210

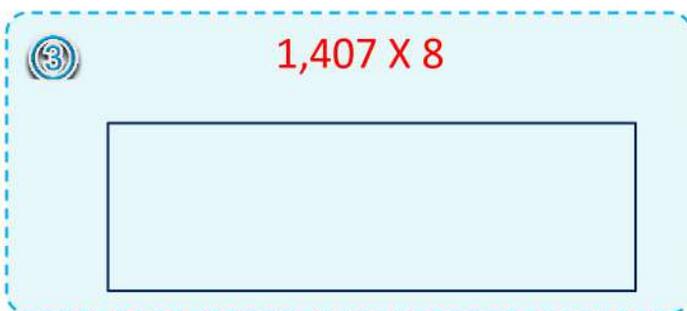
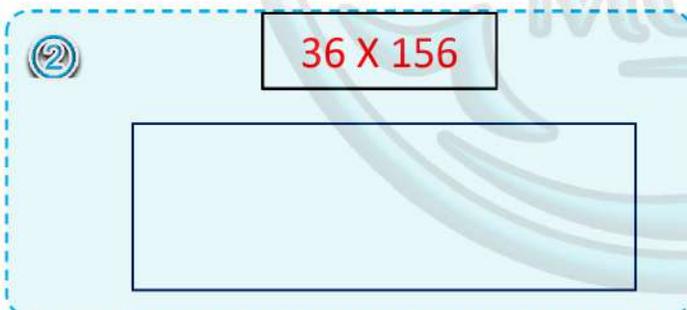
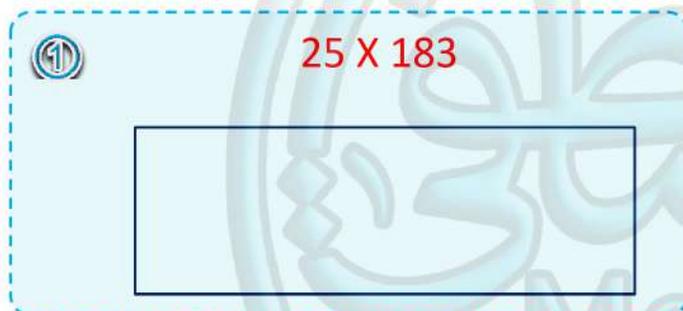
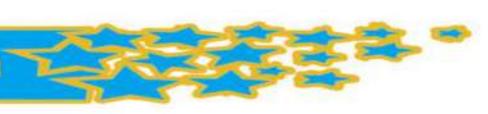
Example ① : Find the product of the following by using area model :

① 25 X 183

Add all products

② 36 X 156

Add all products

③ 1,407 X 8

Add all products

Exercise ① Find the product of the following by using area model :

① 12 X 18

Add all products

② 8 X 523

Add all products

③ 209 X 17

Add all products

④ 24 X 235

Add all products

④ 52 X 853

Add all products

Home Work

24

① Find the product of the following by using area model :

① 12 x 25	① 572 x 93
① 201 x 32	① 7 x 462
① 37 x 25	① 13 x 125

Lessons 2 & 3

The Standard Multiplication

Multiplication problems in the real world

17 X 2,345

1st

2nd

3rd

Example① Find the product of the following

① 29 X 24

② 614 X 28

③ 25 X 478

④ 37 X 609

⑤ 325 X 13

⑥ 4 X 1,375

⑦ 12 X 425

⑧ 9 X 2,054

⑨ 25 X 25

⑩ 12 X 147

⑪ 36 X 732

⑫ 75 X 523

Exercise ① Find the product of the following

Learn Estimating product

Exercise ① Use the estimate by round the greatest place value then find The actual product

Multiplication problems in the real world

① *Mona has a restaurant in Luxor , she sold 402 kebabs in week , she makes Each kebab with 83 grams of meat , how many grams of meat did she use ?*

② *Ahmed saved 123 pounds , Logy saved 12 times as Ahmed ,*

How much money logy saved ?

③ *shirts in the season costs 125 pounds . sweaters cost 270 pounds . Yara and Her friends bought 12 shirts and 13 sweaters . how much money they paid ?*

Home Work

① : Find the product of the following

① 35 X1 4	② 6 X 129	③ 15 X 408	④ 17 X 742
⑤ 325 X 18	⑥ 6 X 1,403	⑦ 11 X 458	⑧ 6 X 2,020
⑨ 325 X 43	⑩ 4 X 2,321	⑪ 16 X 425	⑫ 4 X 2,054

② loucy saved 246 pounds , Linda saved 15 times as Loucy,

How much money Linda saved ?

Unit 4

Lessons 1-2

Division by a two-digit number
Estimating quotient

Remember

17 ÷ 3 = 5 R 2

Dividend — Divisor — Quotient — Remainder

Notes

- *Always the remainder must be less than the divisor.*
- *The dividend = divisor x quotient + remainder*

Multiplying Facts	Division Facts
2 x 4 = 8	8 ÷ 2 = 4
20 x 4 = 80	80 ÷ 2 = 40
200 x 4 = 800	800 ÷ 2 = 400
2000 x 4 = 8000	8000 ÷ 2 = 4000

Learn — Area model to divide

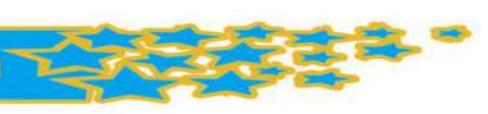
Notes

Area of rectangle = L X W

Divide : 1,845 ÷ 15 by using the area model

Notes

15x1 = 15
15x2=30
15x3=45
15x10=150
15x100=1500

The quotient = 100 + 10 + 10 + 3 = 123

Example1 Use the area model to solve :

① 2,207 ÷ 7= …………

② 492 ÷ 4 = …………

③ 9,798 ÷ 71= …………

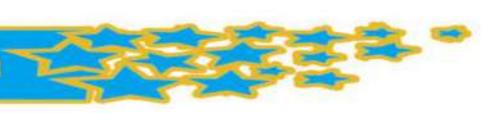
④ 7,391 ÷ 35 = …………

③ 2,968 ÷ 14= …………

④ 3,216 ÷ 15 = …………

Exercise1

① 870 ÷ 6= …………

② 2,556 ÷ 24 = …………

Learn Estimating quotient

We use front end estimation

① 870 ÷ 26 = …………

To the nearest Hundred (870 → 900); To the nearest ten (26 → 30)

900 ÷ 30 ≈ …30…

② 6,465 ÷ 32 = …………

To the nearest thousand (6,465 → 6,000); To the nearest ten (32 → 30)

6,000 ÷ 30 ≈ …200…

Example1 Estimate the quotient :

① 5,814 ÷ 47= ………

② 6,397 ÷ 28 = ………

③ 1,448 ÷ 48 = ………

④ 7,061 ÷ 23 = ………

⑤ 6,658 ÷ 69 = ………

⑥ 1,064 ÷ 19 = ………

⑦ 3,261 ÷ 14 = ………

⑧ 7,550 ÷ 83 = ………

⑨ 1,536 ÷ 16 = ………

Exercise1 Estimate the quotient :

① 576 ÷ 18 = ………

② 8,397 ÷ 38 = ………

③ 1,848 ÷ 48 = ………

④ 9,061 ÷ 33 = ………

⑤ 5,658 ÷ 49 = ………

⑥ 1,064 ÷ 13 = ………

Home work

____
10

① Use the area model to solve :

① 492 ÷ 4 = …………

② 2,145 ÷ 15 = …………

③ 8,125 ÷ 25 = …………

④ 8,568 ÷ 45 = …………

③ 3,770 ÷ 26 = …………

④ 16,926 ÷ 26 = …………

② Estimate the quotient :

① 776 ÷ 38 = ………

② 4,397 ÷ 37 = ………

③ 1,948 ÷ 18 = ………

④ 8,061 ÷ 36 = ………

⑤ 4,658 ÷ 49 = ………

⑥ 1,064 ÷ 14 = ………

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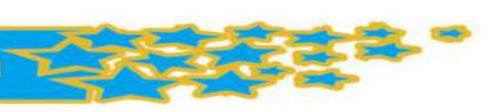

Lessons 3-4

Standard algorithm to divide

Learn

MATH IDEA

The order of division is as follows:

①Divide ②Multiply ③Subtract ③Bring down

Repeat this order until the division is complete.

① 5325÷25 =
0 divide
2 | 5,325

② 5325÷25 =
02 Multiply
25 | 5,325
50

③ 5325÷25
02 Subtract
25 | 5,325
- 50
3

④ 5325÷25=213
0213 Bring down Repeat
25 | 5,325
- 50
32
- 25
75
- 75
00

Example1 Find the quotient :

③ 8,014 ÷ 46 = ...

$$46 \overline{)8,014}$$

④ 543 ÷ 65 = ...

$$65 \overline{)543}$$

⑤ 6,203 ÷ 11 = ...

$$11 \overline{)6,203}$$

⑥ 9,363 ÷ 31 = ...

$$31 \overline{)9,363}$$

Exercise1 Find the quotient :

③ 1,515 ÷ 15 = ...

15 | 1,515

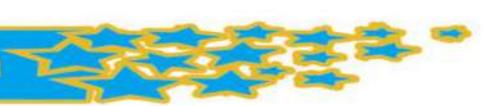
④ 1,818 ÷ 18= ....

18 | 1,818

⑤ 2,028 ÷ 13 = ...

13 | 2,028

⑥ 16,960 ÷ 64 = ...

64 | 16,96

Home work

$\frac{\quad}{10}$

① Find the quotient :

③ 4,251 ÷ 34= ....

34 ⟌ 4,251

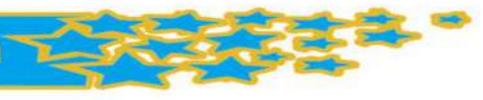
④ 8,184 ÷ 24 = ...

24 ⟌ 8,184

⑤ 6,040 ÷ 45= ....

45 ⟌ 6,040

⑥ 2,175 ÷ 15 = ...

15 ⟌ 2,175

Lesson 5

Standard algorithm to divide

① A baker made 140 servings of baklava for a party . if each baking tray hold 12 Servings of a baklava , how many trays will be needed to hold all the baklava ?

②if the price of 16 books 560 pounds , find the price of each book ?

③A primary school has 588 pupils , it wanted to distribute equally among 14 classes How many pupils in each class ?

Unit 5

Lessons 1-2

Multiplying by power of ten
Multiplying decimals by whole number

Learn Multiplying by x 10 , x 100 and x 1,000

To multiply by 10 move the point one place to right

To multiply by 100 move the point two places to right

To multiply by 1,000 move the point three places to right

① 4 x 10 = 40
② 712.5 x 10 = 7,125
③ 562.4 x 10 = 5,624

① 4 x 100 = 400
② 712.5 x 100 = 71,250
③ 562.4 x 100 = 56,240

① 4 x 1,000 = 4,000
② 712.5 x 1,000 = 712,500
③ 562.4 x 1,000 = 562,400

Example1 Complete :

① 23.14 x 10 = ...
② 7.125 x 10 = ...
③ 562.4 x 10 = ...
④ 0.002 x 10 = ...
⑤ 41.807 x 10 =.........

① 23.14 x 100 = ...
② 7.125 x 100 = ...
③ 562.4 x 100 = ...
④ 0.002 x 100 = ...
⑤ 41.807 x 100 =.........

① 23.14 x 1000 = ...
② 7.125 x 1000 = ...
③ 562.4 x 1000 = ...
④ 0.002 x 1000 = ...
⑤ 41.807 x 1000 =.........

Exercise1 Complete :

① 14.6 x 10 = ...
② 56.71 x 10 = ...
③ 4.635 x 10 = ...

④ 14.6 x 100 = ...
⑤ 56.71 x 100 = ...
⑥ 4.635 x 100 = ...

⑦ 14.6 x 1000 = ...
⑧ 56.71 x 1000 = ...
⑨ 4.635 x 1000 = ...

Learn Multiplying by x 0.1 , x 0.01 and x 0.001

To multiply by 0.1 move the point one place to left

To multiply by 0.01 move the point two places to left

To multiply by 0.001 move the point three places to left

① 4 x 0.1 = 0.4	① 4 x 0.01 = 0.04	① 4 x 0.001 = 0.004
② 712.5 x 0. 1 = 71.25	② 712.5 x 0. 01 = 7.125	② 712.5 x 0. 001 = 0.7125
③ 562.4 x 0.1 = 56.24	③ 562.4 x 0.01 = 5.624	③ 562.4 x 0.001 = 0.5624

Example1 Complete :

① 23.14 x 0.1 = ...	① 23.14 x 0.01 = ...	① 23.14 x 0.001 = ...
② 7.125 x 0. 1 = ...	② 7.125 x 0.01 = ...	② 7.125 x 0.001 = ...
③ 562.4 x 0.1 = ...	③ 562.4 x 0.01 = ...	③ 562.4 x 0.001 = ...
④ 1.2 x 0.1 = ...	④ 1.2 x 0.01 = ...	④ 0.002 x 0.001 = ...
⑤ 4180.7 x 0.1	⑤ 4180.7 x 0.01 =.........	⑤ 418.07 x 0.001 =.........

Exercise1 Complete :

① 14.6 x 0.1 = ...	① 14.6 x 0.01 = ...	① 14.6 x 0.001 = ...
② 56.71 x 0.1 = ...	② 56.71 x 0.01 = ...	② 56.71 x 0.001 = ...
③ 4.635 x 0.1 = ...	③ 4.635 x 0.01 = ...	③ 4.635 x 0.001 = ...
④ 0.009 x 0.1 = ...	④ 0.009 x 0.01 = ...	④ 0.009 x 0.001 = ...
⑤ 20.02 x 0.1 =.........	⑤ 20. 02 x 0.01 =.........	⑤ 20.002 x 0.001 =.........

Learn Multiplying decimals by whole number

If $3 \times 2 = 6$, then $3 \times 0.2 = 0.6$ (one decimal right of the point)

and $4 \times 6 = 24$, then $4 \times 0.6 = 2.4$ (one decimal right of the point)

and $5 \times 25 = 125$, then $5 \times 0.25 = 1.25$ (two decimal right of the point)

$$\begin{array}{r} 214 \\ \times \quad 7 \\ \hline 1{,}498 \end{array} \Rightarrow \begin{array}{r} 21.4 \\ \times \quad 7 \\ \hline 149.8 \end{array} \Rightarrow \begin{array}{r} 2.14 \\ \times \quad 7 \\ \hline 14.98 \end{array}$$

$$\begin{array}{r} 145 \\ \times \quad 23 \\ \hline 3{,}335 \end{array} \Rightarrow \begin{array}{r} 145 \\ \times \quad 2.3 \\ \hline 333.5 \end{array} \Rightarrow \begin{array}{r} 145 \\ \times \quad 0.23 \\ \hline 33.35 \end{array}$$

Example1 Answer the following :

Exercise1 Answer the following :

① 427 × 0.2

②

③

④

Example2 Complete :

① 3×2 hundredths = 6 hundredths = 0.06

② 4×7 hundredths = 28 hundredths = 0.28

③ 5×9 tenths = ... tenths = ...

④ 7×9 tenths = ... tenths = ...

⑤ 8×9 thousandths = ... thousandths = ...

⑥ 6×7 hundredths = ... hundredths = ...

⑤ 4×15 thousandths = ... thousandths = ...

⑥ 3×5 tenths = ... tenths = ...

Exercise2 Complete :

① 2×8 hundredths = ... hundredths = ...

② 3×4 thousandths = ... thousandths = ...

③ 6×7 tenths = ... tenths = ...

④ 4×9 tenths = ... tenths = ...

⑤ 8×3 thousandths = ... thousandths = ...

⑥ 6×9 hundredths = ... hundredths = ...

Home Work

10

① Complete :

① 3.14 x 10 = ………	① 425 x 0.1 = ………	① 0.3 x 3 = ………
② 5.127 x 100 = ……	② 536 x 0.01 = ……	② 7 x 0.6 = ……
③ 2.5 x 1,000 = ………	③ 875 x 0.001 = ………	③ 5 x 0.51 = ………
④0.002 x 1,000 = ……	④35.14 x 0.1 = ……	④6 x 0.471 = ……
⑤ 82.8 x 10 =………	⑤ 4.5 x 0.01 =………	⑤ 1.2 x 457=………

① Choose the correct answer :

① 7 x 0.7= ……….. [49 , 4.9 , 0.49 , 0.049]

② 3.4 x ……….. = 340 [10 , 100 , 1000 , 0.01]

③ 5 x 0.1 = ………… [5 , 0.5 , 0.05 , 0.005]

④ 0.2 x 10 = ………… [2 , 0.2 , 0.02 , 0.002]

⑤ $3 x 0.6$ [0,018 , 0.18 , 10.8 , 1.8]

⑥ 4 x 8 Thousandths = ………………..... [0.032 , 0.32 , 3.2 , 32]

⑦ 5 x 25 tenths = ………………..... [0.125 , 1.25 , 12.5 , 125]

⑧4 x 4 Thousandths = ………………..... [16,000 , 1.6 , 0.16 , 0.016]

⑨ 24.3 x 0.01 = ………………… [243 , 2.43 , 0.243 , 24.3]

Lessons 3-4

Multiplying tenths by tenths
Using the area model to multiply

Learn Multiplying tenths by tenths

one place	one place	two place
0. 1	x 0. 1	= 0. 01

one place	one place	two place
1 . 2	x 0 . 7	= 0. 84

Example1 Find the products :

① 0.2 x 0.3 = 0.06
② 0.5 x 0.2 = 0.10 = 0.1
③ 1.2 x 0.3 = 0.36
④ 2.4 x 0.2 = 0.48

Example2 Find the products :

① 0.7 x 0.3 = ...
② 3.2 x 0.4 = ...
③ 2.5 x 0.5 = ...
④ 4.2 x 0.1 = ...
⑤ 4.7 x 0.3 = ...
⑥ 0.2 x 2.4 = ...
⑦ 21.5 x 0.7 = ...
⑧ 0.8 x 0.8 = ...
⑨ 1.9 x 0.4 = ...

Exercise1 Find the products :

① 0.5 x 0.5 = ...
② 3.4 x 0.2 = ...
③ 2.7 x 0.3 = ...
④ 1.2 x 0.2 = ...
⑤ 4.7 x 0.3 = ...
⑥ 0.2 x 2.4 = ...
⑦ 21.5 x 0.7 = ...
⑧ 0.9 x 0.8 = ...
⑨ 0.3 x 2.5 = ...

Learn *Using the area model to multiply decimals*

How to evaluate 1.4 x 3.8 ?

②

	3	0.8
1	3	0.8
0.4	1.2	0.32

Example 1 Find the products :

①2.7 x 5.3 = …………

②3.2 x 6.4 = …………

③2.4 x 8.5 = …………

④4.2 x 6.1 = …………

Exercise 1 Find the products :

① $2.7 \times 5.3 =$ …………

② $3.2 \times 6.4 =$ …………

Example 2 Choose the correct answer :

① Since $9 \times 3 = 27$, then $0.9 \times 0.03 =$ …………. [27 , 2.7 , 0.27 , 0.027]

② Since $3 \times 15 = 45$, then $0.3 \times 1.5 =$ …………. [45 , 4.5 , 0.45 , 0.045]

③ Since $7.5 \times 4.3 = 32.25$, then $75 \times 0.43 =$………

[3.225 , 32.25 , 322.5 , 0.3225]

④ If area model of a problem is

	3	0.2
4	x	0.8
0.7	2.1	y

then $x + y =$ ……….

[12 , 12.14 , 15 , 15.4]

④ If area model of a problem is

	L	0.8
M	15	0.8
0.4	1.2	0.32

then $L + M =$ ……….

[8 , 15.14 , 15 , 8.15]

Home Work

① Find the products :

①0.5 x 0.7 = …………	②0.4 x 0.2 = …………	③0.7 x 0.3 = …………
④0.5 x 0.9 = …………	⑤0.4 x 0.9 = …………	⑥0.2 x 3.4 = …………

② Find the products by using area model :

①3.2 x 4.3 = …………

②2.8 x 3.4 = …………

③7.4 x 2.5 = …………

④6.2 x 7.1 = …………

Lessons 5-6

Multiplying decimals through the Hundredths and thousandths place

 Ignore the decimal point

 Multiply

 Place the decimal point

Example 1 Find the product :

4.47
× 5.2
894
+ 22350
23.244

2.03
× 0.07
0.1421

Exercise 1 Find the product :

① 40.7×3.2

② 62.4×1.5

③ 7.14×2.1

④ 585×0.3

Example 2 Compare using [> , = , <] :

① 0.318×1.5 ◯ 3.18×0.15

② 0.214×38 ◯ 2.14×3.8

③ 03.45×2.1 ◯ 34.5×0.21

④ 0.045×3.6 ◯ 45×0.036

⑤ 574×0.126 ◯ 57.4×1.26

⑥ 74.2×3.5 ◯ 7.42×35

⑦ 3.87×3.5 ◯ 38.7×0.35

⑧ 458×4.52 ◯ 45.8×4.52

⑨ 0.258×1.7 ◯ 2.58×0.17

⑩ 714×1.5 ◯ 7.14×0.15

Exercise 1 Compare using [> , = , <] :

① 0.528×1.5 ◯ 5.28×0.15

② 0.214×38 ◯ 2.14×3.8

③ 03.05×2.4 ◯ 30.5×0.24

④ 0.015×5.6 ◯ 15×0.56

⑤ 521×8.26 ◯ 52.1×826

⑥ 369×3.5 ◯ 36.9×35

Home Work

___ / 20

① Find the products :

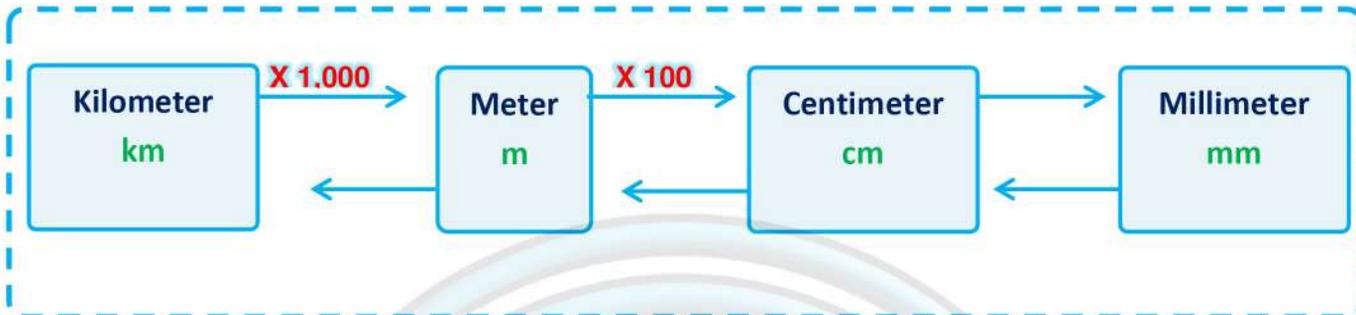
No.	Problem
①	4.47 × 5.2
②	25.6 × 1.5
③	7.25 × 6.1
④	562 × 0.03
①	17.2 × 0.5
⑥	536 × 0.23
⑦	963 × 0.07
⑧	75.3 × 1.5

② Compare using [> , = , <]

No.	Left	◯	Right
①	0.416 ×1.5	◯	41.6 × 0.15
②	0.023 ×38	◯	2.3 × 3.8
③	03.15×2.4	◯	315 × 0.24
④	0.015 ×5	◯	15 × 0.005
⑤	121 ×8. 06	◯	12.1 × 806
⑥	32.8 ×3.5	◯	32.8 × 35

Lessons 7-8

decimals and the metric system
measurement decimals and power of ten

Learn

Example 1 Complete

① X 100 — 7.54 m = ...754......... cm

② X 0.1 — 14.16 mm = ...1.416..... cm

③ X 0.01 — 255.2 cm = ...2.552...... m

④ X 0.001 — 4,620 m = ...4.62........km

③ X 10 — 1.14 cm =...11.4....... mm

④ X 1000 — 4,620 km = ...4.62........m

Exercise 1 Complete

① 3.54 km = ... m

② 7.456 m = ...cm

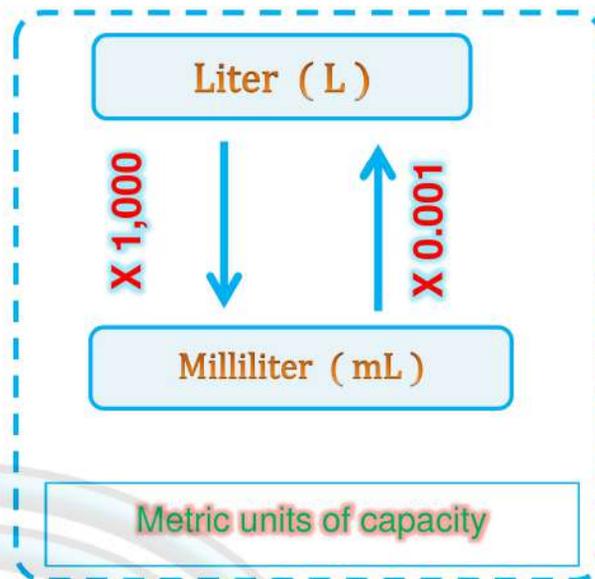
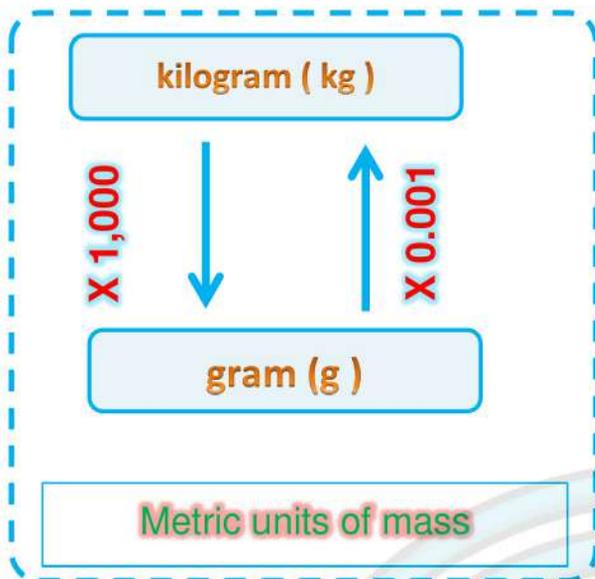
③ 41.25 cm .... mm

④ 4,620 m = ...km

③ 45.4 cm =.................... m

④ 75.3 cm = ... m

Metric units of mass

Metric units of capacity

Example 2 **Complete**

① 7.54 kg = ...7540......... g (X 1000)

② 7.54 L = ...7540......... ml (X 1000)

③ 2.425 kg = ...2,425......... g (X 1000)

④ 0.025 L = ...25......... ml (X 1000)

⑤ 41.6 g = ...0.0416......... kg (X 0.001)

⑥ 582 ml = ...0.528......... L (X 0.001)

Exercise 2 **Complete**

① 0.5 kg = ... g

② 0.25 L = ... ml

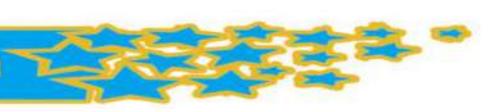
③ 8.12 kg = ... g

④ 7.3 L = ... ml

⑤ 745.6 g = ... kg

⑥ 75 ml = ... L

⑦ 418 g = ... kg

⑧ 761.1 ml = ... L

Example 3 Complete

① 5.7 L = ... ml

② 7,400 ml = ... L

③ 3.02 kg = ...g

④ 2.5 L = ...ml

⑤ 140 g = ...kg

⑥ 317 kg = ...g

⑦ 5 L − 3,200 ml = ... L

⑧ 15.6 kg + 1,800 g = ... kg

Example 4 Put [> , = , <]

① 2,180 cm ◯ 2.18 m

② 0.41 kg ◯ 416 g

③ 0.005 L ◯ 5 ml

④ 24 mm ◯ 0.24 cm

⑤ 0.088 m ◯ 8.7 cm

⑥ 7.1 L ◯ 715 ml

⑦ 8 g 0.08 kg

⑧ 0.01 km ◯ 7 m

Home Work

① Complete

① 0.43 L = ... ml

② 3,250 ml = ... L

③ 14.1 kg = ...g

④ 2.5 L = ...ml

⑤ 2,647 g = ...kg

⑥ 0.048 kg = ...g

⑦ 2,647 km = ... m

⑧ 3.02 m = ... cm

⑨ 3 L + 243 ml = ... L

⑩ 3.4 kg + 1,500 g = ... kg

② Put [> , = , <]

① 3,450 cm ◯ 3.45 m

② 0.12 kg ◯ 120 g

③ 0.007 L ◯ 8 ml

④ 63 mm ◯ 0.63 cm

⑤ 0.042 m ◯ 4.2 cm

⑥ 6.5 L ◯ 650 ml

⑦ 9,421 g ◯ 94.21 kg

⑧ 0.07 km ◯ 7 m

⑨ 0.4 cm ◯ 40 mm

⑩ 0.6 m ◯ 60 cm

Lesson 9

Solving multistep story problems

①dalia made a liter of sugar cans juice . she drank 320 ml , her father drank 0.25 L , how much sugar can juice is remaining ?

②Hoda is stride 0.72 meters , how far in meters will Hoda walk after Talking 1000 stride ?

③Samy bought 14.5 meters of clothes . the price of each meter Is 3.5 pounds , what is the price of cloths ?

④sandy bought 450 ml of mango juice . her sister Martina drink 0.26 L . What is the remaining quantity of the mango juice ?

Home Work

① **Answer the following**

① Eman saved 12.3 pounds each week . how much money she saved

In 10 weeks ?

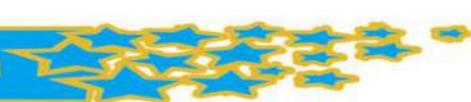
----

②Amara went to the supermarket , she bought 1.5 kg of tomatoes , 875 g

Of peas , find the weight [in gram] of what Amara bought ?

----

③Amgad needs to drink about 4,230 ml of water every day , how many

Liters of water does he need ?

Lessons 10-11

•Dividing by power of ten
• patterns and relationships in powers

Learn Dividing by ÷ 10 , ÷ 100 and ÷ 1000

To divide by 10 move the point one place to left

To divide by 100 move the point two places to left

To divide by 1000 move the point three places to left

① 4 ÷ 10 = 0.4
② 712.5 ÷ 10 = 71.25
③ 562.4 ÷ 10 = 56.24

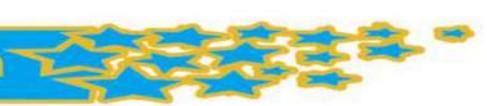
① 4 ÷ 100 = 0.04
② 712.5 ÷ 100 = 7.125
③ 562.4 ÷ 100 = 5.624

① 4 ÷ 1000 = 0.004
② 712.5 ÷ 1000 = 0.7125
③ 562.4 ÷ 1000 = 0.5624

Example1 Complete :

① 23.14 ÷ 10 = ...
② 7.125 ÷ 100 = ...
③ 562.4 ÷ 100 = ...
④ 1.2 ÷ 10 = ...
⑤ 4180.7 ÷ 10 =.........
⑥ 2,314 ÷ 1000 = ...
⑦ 7,125 ÷ 1000 = ...
⑧ 562 ÷ 100 = ...
⑨ 0. 02 ÷ 10 = ...
⑩ 418.07 x ÷ 10 =.........

Exercise1 Complete :

① 3.01 ÷ 10 = ...
② 452 ÷ 100 = ...
③ 0.2 ÷ 100 = ...
④ 115.36 ÷ 10 = ...
⑤ 42.7 ÷ 10 =.........
⑥ 875 ÷ 1000 = ...

Learn Multiplying by ÷ 0.1 , ÷ 0.01 and ÷ 0.001

To multiply by 10 move the point one place to right

To multiply by 100 move the point two places to right

To multiply by 1,000 move the point three places to right

① 4 ÷ 0.1 = 40
② 712.5 ÷ 0.1 = 7,125
③ 562.4 ÷ 0.1 = 5,624

① 4 ÷ 0.01 = 400
② 712.5 ÷ 0.01 = 71,250
③ 562.4 ÷ 0.01 = 56,240

① 4 ÷ 0.001 = 4,000
② 712.5 ÷ 0.001 = 712,500
③ 562.4 ÷ 0.001 = 562,400

Example1 Complete :

① 23.14 ÷ 0.1 = ...
② 7.125 ÷ 0.1 = ...
③ 562.4 ÷ 0.1 = ...
④ 0.002 ÷ 0.1 = ...
⑤ 4.807 ÷ 0.1 =.........

① 23.14 ÷ 0.01= ....
② 7.125 ÷ 0.01 = ...
③ 562.4 ÷ 0.01= ....
④ 0.002 ÷ 0.01= ....
⑤ 4.807 ÷ 0.01 =.........

① 23.14 ÷ 0.001= ....
② 7.125 ÷ 0.001= ....
③ 562.4 ÷ 0.001= ....
④ 0.002 ÷ 0.001= ....
⑤ 4.807 ÷ 0.001 =.........

Exercise1 Complete :

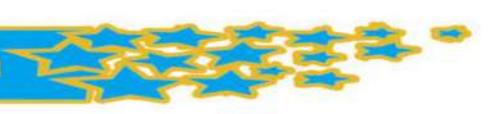
① 15.2 ÷ 0.1 = ...
② 4.56 ÷ 0.1 = ...
③ 36.45 ÷ 0.1 = ...

① 15.2 ÷ 0.01= ....
② 4.56 ÷ 0.01 = ...
③ 36.45 ÷ 0.01= ....

① 15.2 ÷ 0.001= ....
② 4.56 ÷ 0.001= ....
③ 36.45 ÷ 0.001= ....

÷ 10	÷ 100	÷ 1000
x 0. 1	x 0.01	x 0.001

Left

X 10	X 100	X 1000
÷ 0. 1	÷ 0.01	÷ 0.001

Home Work

15

Choose the correct answer :

① $6.3 \times 100 =$ ....

A- 0.063 B- 6300 C- 6.300 D- 630

② $536 \times 0.01 =$

A- 0.536 B- 5.36 C- 53.6 D- 5.3600

③ 52×0.1

A- 52 B- 5,200,000 C- 5.2 D- 0.052

④ 305×100

A- 30,500 B- 30.5000 C- 305 D- 3,050

Complete :-

① $0.4 \div 0.001 =$ ....

② 2.35 x 10 = ...

③ 33.56 x100 = 33.56 ÷ ....

④ 28.4 x .... = 0.284

⑤ 3.4 m = ... km

⑥ 712 ml =............ L

Answer :

What is the height of 10 floors in a building? if the height of each floor 280 cm in meters ?

Lessons 12-13

• Dividing decimals by whole numbers
• Dividing decimals by decimals

Learn Dividing decimals by whole numbers

How can you evaluate 210 ÷ 40 without remainder ?

Example1 Divide :

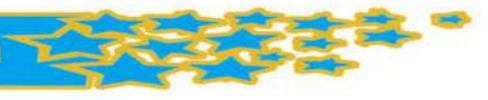
① 155 ÷ 50 = ...

50 | 155

② 58.05 ÷ 15 = ...

15 | 58.05

③ 9 ÷ 8 = ...

8 | 9

④ 131.5 ÷ 25 = ……….

25 ⟌ 131.5

⑤ 128 ÷ 5 = ……….

5 ⟌ 128

⑥ 3 ÷ 40 = ……….

40 ⟌ 3

Exercise1 Divide :

① 151 ÷ 25 = ……….

25 ⟌ 151

② 333.2 ÷ 14 = ……….

14 ⟌ 333.2

③ 3 ÷ 4 = ……….

4 ⟌ 3

Learn Infinite division

① $223.1 \div 9 =$ ....

to the nearest hundredths

9 | 223.1

② $1.21 \div 6 =$ ....

to the nearest thousandths

6 | 1.21

③ $8 \div 3 =$ ....

to the nearest tenths

3 | 8

Exercise2 Divide :

① $5.5 \div 3 =$ ....

to the nearest hundredths

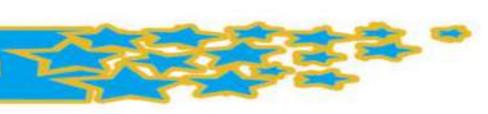
3 | 5.5

② $5 \div 8 =$ ....

8 | 5

③ $8 \div 7 =$ ....

to the nearest tenths

7 | 8

Learn Dividing decimals by decimals

To divide by a decimal , writing the devisor as a whole number

Do this by multiplying the divisor and dividing by 10 , 100 and 1000

According to the number of places of the decimal part of the divisor .

Example1 Divide :

① 3 ÷ 0.5 = ...

×10 ×10

30 ÷ 5 = 6

② 3.2 ÷ 0.4 = ...

③ 0.35 ÷ 0.07 = ...

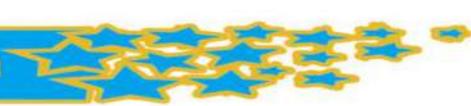
④ 1.5 ÷ 0.3 = ...

Exercise1 Divide :

① 2.4 ÷ 0.4 = ...

② 0.42 ÷ 0.06 =

③ 3.2 ÷ 0.4 = ...

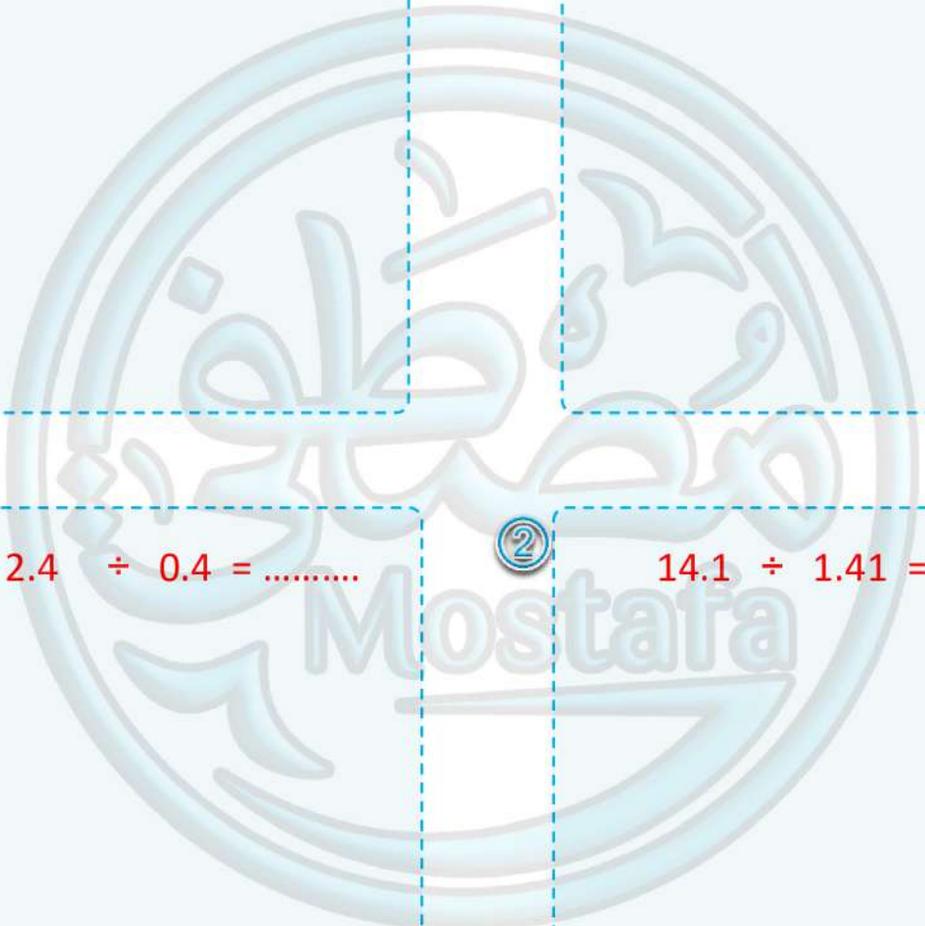
④ 3.2 ÷ 0.4 = ...

Example2 Divide :

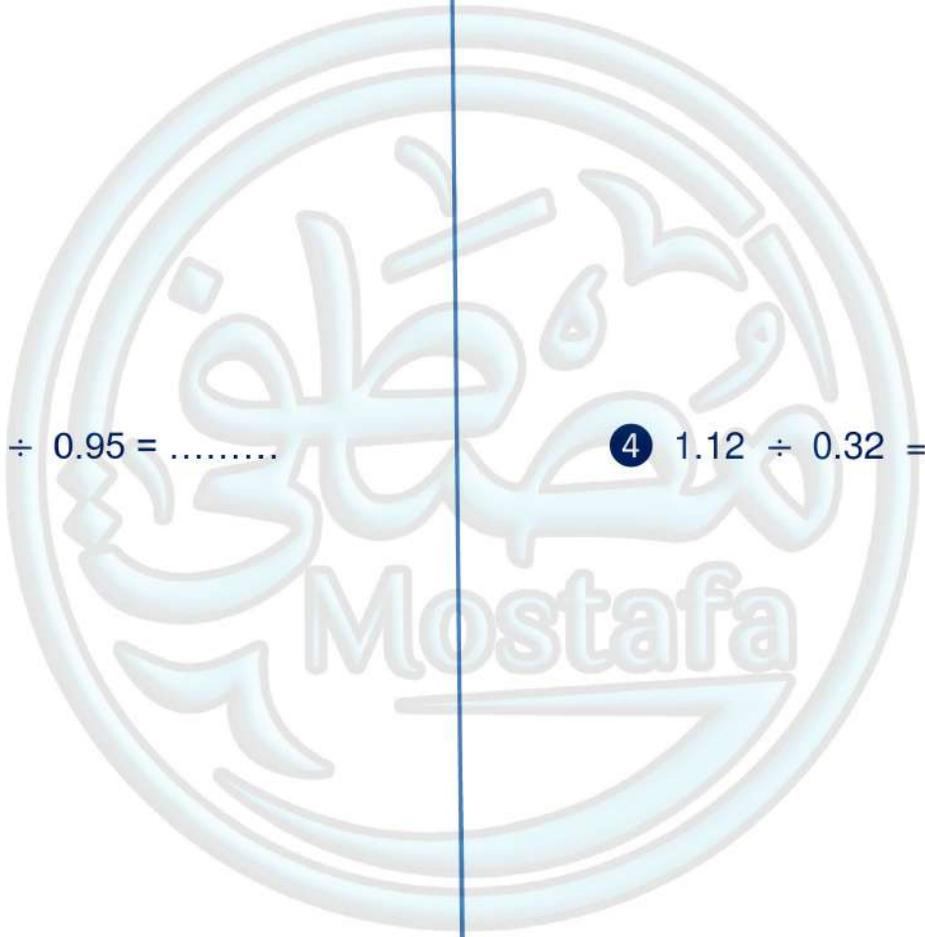
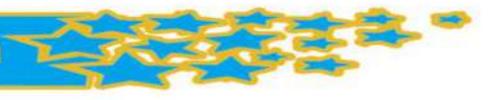
you may need to add a zero or More to the right of the dividend

2.4 ÷ 0.4 = ……….

14.1 ÷ 1.41 = ……….

2.4 ÷ 0.4 = ……….

14.1 ÷ 1.41 = ……….

Exercise 2 Find the quotient .

1. $34.4 \div 0.4 =$ …………
2. $3.175 \div 2.5 =$ ……….
3. $1.14 \div 0.95 =$ ………
4. $1.12 \div 0.32 =$

Home work

Complete :

1. 3.6 ÷ 0.4 = …………..
2. 7.2 ÷ 0.8 = ………………..
3. 0.33 ÷ 0.11 =……….
4. 0.28 ÷ 0.004 = ………….

Choose the correct answer :

1. 80 ÷ 0.08 = ……… [A- 10 B- 100 C- 1000 D- 8000]
2. 32.5 ÷ ……… = 100 [A- 3.25 B- 0.0325 C- 0.325 D- 325]
3. 43 days ≈ ………… days to the nearest week [A- 4 B- 5 C- 6 D- 7]
4. 1.6 ÷ 0.2 = ………… [A – 8 B- 6 C- 0.8 D- 12]

Find the quotient:-

1. 15.64 ÷ 3.4 = …………
2. 64.5 ÷ 4.3 = ……………

Unit 6

Lessons 1-2

numerical expression

numerical expression with grouping symbols

Learn

Order of operation

$3 + 0.2 \times 5$

$3 + 1.0 = 3$

$3 + 0.2 \times 5$

$3.2 \times 5 = 16$

Which answer is the correct ?

Salma's or Adam's

First	Second	Third
brackets ( ) or [...]	Multiply or divide from the left $\times$ *or* $\div$	Addition or subtract from the left $+$ *or* $-$

Example1 Complete :

1. $12 + (9 - 2) \times 8$

Solution

$= 12 + (9 - 2) \times 8$ bracktes first

$= 12 + 7 \times 8$ multiply

$= 12 + 56$ add

$= 68$

2. $53 \times 2 + 54 \div 1.5$

solution

$= 53 \times 2 + 54 \div 1.5$ multiply, divide

$= 106 + 36$ add

$= 142$

3. $40 \div 8 \times 0.01 + 14.95$

4. $12 + 24 \div 4 + 8$

Exercise 1 Use the order of operation to find .

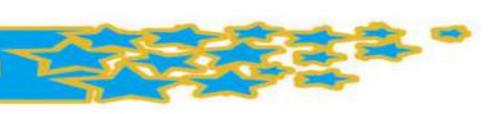
1. $10 \times 4 - 3$

2. $15 \div 3 + 2$

3. $3.6 \times (4 + 6) - 12$

4. $6 + 4 \times 2 - 14$

5. $8 + (2.4 \div 0.4) \times 3$

6. $(30 - 4) \times 2 + 5$

Exercise 2 Choose the correct answer

1. the first operation to solve $88 - 14 \div 7 + 12 \times 33$ is …………..

   [A. subtract B. divide C. add D. multiply]

2. $7.6 \div 0.2 + 3.3 \times 10 =$ ……….

   [A. 15.2 B. 54 C. 71 D. 266]

3. $33 \div (2 + 9) \times 5 =$ …………

   [A. 6 B. 7 C. 12 D. 15]

4. $10 + 4 \times 6 - 24 =$ ………………

   [A. 14 B. 24 C. 10 D. 216]

5. the second step to solve $9.3 \times 0.1 + 4.7 - 1.1$ is ………….

   [A. 9.3×0.1 B. 9.3×4.8 C. $0.93 + 4.7$ D. $0.93 + 1.1$]

Home work

10

Use the order of operation to find .

1. $150 \div 10 + 6 \times 1.5 - 5$

2. $40 - 10 \div 5$

3. $8.4 \times (3.6 + 6.4) + 4$

4. $18 \div 3 \times 3$

5. $20 + [(4 + 2) \times 3]$

6. $3 + 3.3 \div 1.1 - 6$

Choose the correct answer :-

1. the first operation to solve $12 + 20 \times 5 - 5$ is ....

   [A. subtract B. divide C. add D. multiply]

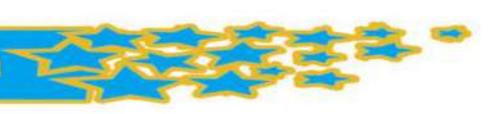
2. $30 - 10 \times 3 + 6 =$ ....

   [A. 26 B. 6 C. 20 D. 30]

3. $100 + 3.04 \times 100 =$ ....

   [A. 404 B. 10,30 C. 304 D. 3.104]

4. $9 - 6 + 3 \times 2 =$ ....

   [A. 6 B. 3 C. 0 D. 9]

Lesson 3

Writing expression to represent scenarios

Example 1 :

Add 22.7 and 35.3 then multiply the result by 3 .

Solution : (22.7 + 35.3) x 3 = 58 x 3 = 174

Example 2 :

subtract 3.1 from 4.62 then multiply the result by 2

Solution : --

Example 3 :

Divide 93 by 0.3 and then add 40 after that divide the result by 5

Solution : --

Exercise

Writing expression then evaluate the expression :

1. add 7.4 and 2.3 then multiply the result by 10

   Solution : --

2. subtract 12.4 from 26.8 then divide the result by 100

   Solution : --

3. find the difference between 10 and 9.27 , multiply by sum of 54 and 46

   Solution : --

4. add 32 to 25 and divide the result by 0.5

   Solution : --

Homwork

Writing expression then evaluate the expression :

1. difference between 42 and 37 then multiply the sum of 2 and 8

---

2. multiply 3.6 by 10 and add the result to 12.4

---

3. divide the sum of 34.8 and 65.2 by 5

---

4. add 64.2 to 12.6 , then multiply the result by 10

---

5. add 18.7 to the result of dividing 45.6 by 10 then subtract the result from 99

---

6. subtract 13.2 from the sum of 23.6and 61.4

---

7. divide the sum of 3.8 and 5.2 by 3

Lesson 4

Idintifying numerical pattern

Learn look number pattern find the rule.

Think what should I do to 2 to get 5 ? what should I do to5 to get 8 ?

Example1 Look at each table and determine the rule :

Input	Output
5	7
6	8
7	9
8	10

Rule : ----------

Input	Output
4	1
8	2
12	3
16	4

Rule : ----------

Input	Output
5	7
6	8
7	9
8	10

Rule : ----------

Input	Output
5	4
6	5
7	6
8	9

Rule : ----------

Example 2 Write the rule for each pattern , and complete :

1. 52 , 44 , 36 , 28 , 20 , …12……, ……4….. Rule …n – 8 ………
2. 23 , 27 , ………., 35 , 39 , ………….. Rule ……………
3. 2 , 4 , 8 , 16 , ………… , 64 , …………… Rule ………
4. If the input is 8 and the rule is n− 3 , then the output is ………….
5. If the rule is n×3 , and the output is 18, then the input is ………….

Exercise 1 Look at each table and determine the rule:

Input	Output
5	20
6	24
7	28
....	36

Rule : -----------

Input	Output
3	8
4	9
5	......
......	11

Rule : -----------

Input	Output
9	6
12	.....
14	11
16	13

Rule : -----------

Input	Output
50	10
45	9
40	....
....	6

Rule : -----------

Exercise 2 Write the rule for each pattern , and complete :

1. 17 , ... , 21 , 23 , ... , ... Rule ....
2. .... , 8 , 15 , ..., 29 ,............. Rule ....
3. 3 , 9 , 27 , ... , ..., ... Rule ....
4. 1000 , 100 , 10 , ..., ... Rule ....
5. 3.5 , 4 , 4.5 , 5 , ... , ... , ... Rule ....

Exercise 3 Complete :

1. The rule of the pattern : 3 , 7 , 11 , 15 , ... is ......
2. The rule of the pattern : 3 , 6 , 12 , 24 , ... is ......
3. The rule of the pattern : 5 , 5.3 , 5.6 , 5.9 , ... is ......
4. If the input is 7 and the rule is n+4 , then the output is ....
5. If the rule is n+4 , and the output is 13, then the input is ....

Homwork

① Look at each table and determine the rule:

Input	Output
2	5
6	9
10	13
....	20

Rule : -----------

Input	Output
3	6
5	10
7	......
11	22

Rule : -----------

Input	Output
9	7
12	.....
14	12
16	14

Rule : -----------

Input	Output
2	10
3	15
4	....
....	30

Rule : -----------

② Write the rule for each pattern , and complete :

1. 19 , ... , 13 , 10 , ... , ... Rule ....
2. .... , 7 , 13 , ..., 25 ,............ Rule ....
3. 1 , 3 , 5 , ... , ..., ... Rule ....
4. 5 , 10 , 115 , ..., ... Rule ....
5. 1.5 , 2 , 2.5 , 3 , ... , ... , ... Rule ....

③ Complete :

1. The rule of the pattern : 4 , 8 , 12 , 16 , ... is ......
2. The rule of the pattern : 2 , 4 , 8 , 16 , ... is ......
3. The rule of the pattern : 3 , 3.6 , 4.2 , 4.8 , ... is ......
4. If the input is 3 and the rule is n+4 , then the output is ....
5. If the rule is n÷4 , and the output is 12, then the input is ....

My little dictionary

The Word	Its meaning

The Word	Its meaning